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SOME MODELS FOR VISIBILITY FOR GERMAN STATIONS.(U)
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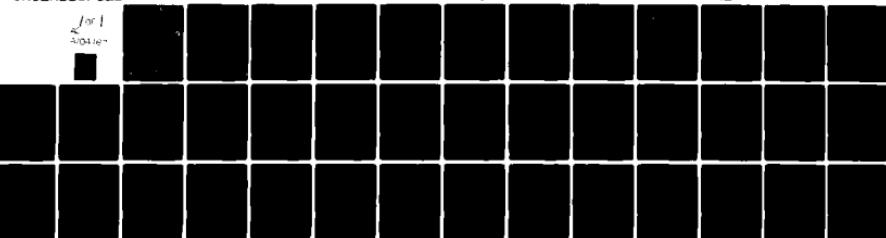
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SOME MODELS FOR VISIBILITY FOR GERMAN STATIONS

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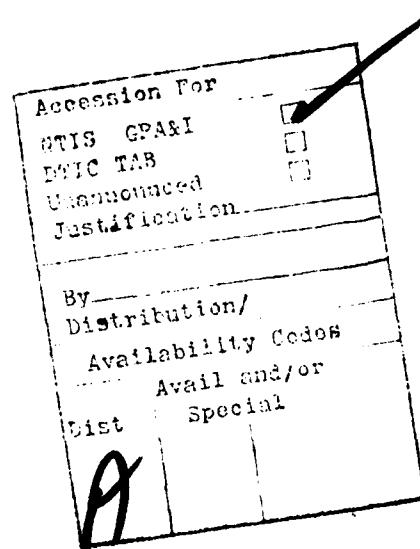
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1. Introduction

A goal of the Air Weather Service is to be able to expeditiously give the probability that a weather element will have a value above a specified threshold for any location and any time. In previous reports, the present investigators have shown how probability models can be constructed for such weather elements as visibility, ceiling, sky cover, precipitation and windspeed for stations where records exist, so that the required probabilities can be easily calculated.

More recently studies have been made to develop models for visibility where data does not exist. The pilot study was made using data from Germany. Models for visibility were developed for thirty German stations for different months and times of day using the Weibull distribution. Regression runs were made to obtain expressions for parameter estimates as functions of variables such as elevation, relative elevation, proximity to water, direction of terrain at the station, etc. These expressions are then usable to obtain Weibull model parameter estimates for arbitrary locations..

The present report gives the Weibull parameter estimates for the thirty German stations for each month of the year and eight times of day. Measures of model accuracies for the different stations are also given..

The data used to develop the models was extracted from the "Revised Uniform Summary of Weather Observations" (RUSSWO's) prepared by the Data Processing Division of the Air Weather Service.

2. Modeling for Visibility

The Weibull distribution has been used by Somerville, Bean and Falls (1979) to model visibility for a number of diverse locations. The cumulative distribution function for the Weibull distribution is given by

$$F(x) = 1 - e^{-\alpha x^{\beta}} \quad (2.1)$$

where α and β are constants.

There are a number of reasons for using the Weibull distribution to model visibility. Previous usage has shown the Weibull distribution to be sufficiently flexible for modeling visibility for many different locations and time. Also, the Weibull family of curves has a cumulative distribution function which is in closed form. Thus for a visibility distance of x miles, $F(x)$ gives the probability that the visibility will be less than x miles. In general, α and β values were obtained for a specified stations for each three-hour period, for each month.

3. Estimation of the Parameters of the Weibull Distribution

The parameters of the Weibull distribution were estimated by choosing the values of α and β for which the Weibull cumulative distribution function most closely fits the empirical cumulative distribution. If $\hat{F}(x)$ is the empirical cdf and $F(x;\alpha,\beta)$ is the model cumulative distribution function, then the values chosen for α and β were those values for which the expression

$$\sum [\hat{F}(x) - F(x;\alpha,\beta)]^2 \quad (3.1)$$

has its minimum value. The summation is over the x values given in the RUSSWO's (1/4, 5/16, 1/2, ..., 5, 6). The solution for α and β was accomplished using non-linear regression techniques. A detailed description of non-linear regression techniques is given in Heuser, Somerville and Bean (1980). The FORTRAN computer program which was used is described and a listing provided in Bean, Heuser and Somerville (1981). Figure 3.1 illustrates the use of the method using visibility data from Schwaebisch Hall, Germany for March 0700 hours. Table 3.1 gives the observed and fitted values for the same station, month and hour.

x miles	0	1/4	5/16	1/2	5/8	3/4	1	5/4	3/2	2	5/2	3	4	5	6
Obs.	.000	.027	.031	.038	.048	.054	.065	.100	.136	.221	.303	.311	.411	.469	.538
Fit	.000	.020	.026	.044	.057	.070	.096	.123	.150	.203	.254	.304	.398	.482	.556

Table 3.1
OBSERVED AND FITTED PROBABILITIES FOR PROB(X < x)
SCHWAEBISCH HALL, GERMANY MARCH - 7 A.M.

Section 6 gives the α and β values by month and time of day for each of the 30 German stations. In each case two measures of "goodness of fit" of the models are also given. These are described in the next section.

4. Goodness of Fit of the Models

For each station, month and time of day the root mean square of the difference between the empirical and model probabilities was obtained. This is just the mean square of the value obtained from expression (3.1). This value appears as "RMS" in the tables in Section 6. Also appearing for each station, month and hour is "P(E > .01)". This is the proportion (of the 14 x -values) for which the difference between the observed value and the model or fitted data is greater than .01.

Some overall goodness of fit indicators for each of the 30 stations are given in Table 4.1. The RMS given is the RMS of the differences between observed and fitted values over all months and hours for that station. $P(E > .01)$ and $P(E > .05)$ give respectively the proportion of time the difference between observed and fitted values is greater than .01 and .05, respectively.

5. Use of the Models

Suppose one wishes to obtain the probability that the visibility is less than .8 miles at Schwaebisch Hall, Germany at 7 a.m. in February. Using the tables in Section 6, we have $\alpha = .101168$ and $\beta = 1.162492$. Using the Weibull model, the calculated probability is

$$1 - e^{-\alpha x^\beta} = .075$$

We thus estimate the required probability to be .075.

6. Tables of Coefficients of the Individual Models

The following pages contain the α and β coefficients and also two measures of "goodness of fit," "RMS" and " $P[E > .01]$ " for each of the 30 German stations, by month and hour.

The last page gives $P[E > .01]$ and $P[E > .05]$ and the RMS, where the calculations are made using results from all months and times of day.

7. References

Bean, S. J., M. Heuser and P. N. Somerville, "A Program for Estimating Parameters in a Cumulative Distribution Function" AFGL-TR-81-xxxx, 31 March 1981.

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Somerville, Paul N., Steven J. Bean and Sherrill Falls, "Some Models for Visibility" AFGL-TR-79-0144, 30 June 1979.

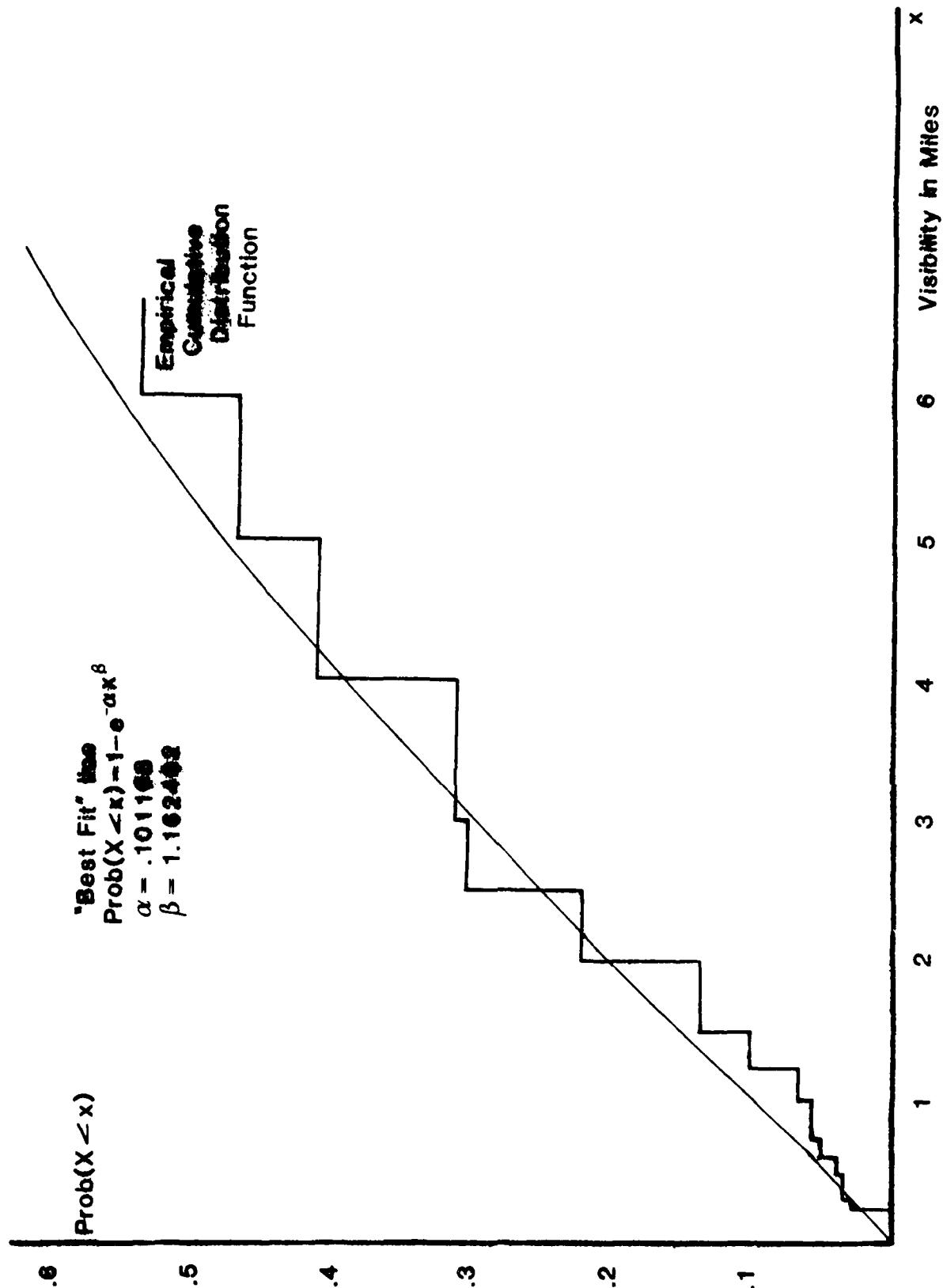


FIGURE 3.1 Visibility For Schwaebisch Hall, Germany
 February 7 a.m.

STATION	P(E>.01)	P(E>.05)	RMS
HAHN AB WBAN#34055	0.304	0.001	0.011
BITBURG AB WBAN#34049	0.324	0.000	0.011
RAMSTEIN AB WBAN#34050	0.249	0.000	0.010
SPANGDAHLEM AB WBAN#34054	0.210	0.000	0.009
TEMPELHOF APRT WBAN#35104	0.333	0.007	0.015
ANSBACH AAF WBAN#34172	0.359	0.023	0.018
FULDA AAF WBAN#35053	0.403	0.015	0.016
ERDING AS WBAN#34168	0.329	0.014	0.015
FEUCHT AAF WBAN#34198	0.424	0.031	0.020
BAUMHOLDER AAF WBAN#34077	0.604	0.136	0.038
BAD KREUZNACH AAF WBAN#34070	0.371	0.021	0.017
BAD TOLZ AAF WBAN#34197	0.456	0.010	0.018
ZWEIBRUCKEN AB WBAN#34058	0.315	0.000	0.012
WIESBADEN AB WBAN#35010	0.149	0.000	0.008
FINTHEN AAF WBAN#34075	0.404	0.007	0.016
FURTH AAF WBAN#34176	0.446	0.049	0.022
HANAU AAF WBAN#35009	0.317	0.004	0.013
GABLINGTON AAF WBAN#34196	0.457	0.022	0.019
GIEBELSTADT AUX AF WBAN#34036	0.387	0.029	0.019
GRAFENWOHR AAF WBAN#34189	0.507	0.029	0.021
HEIDELBERG AAF WBAN#34046	0.354	0.015	0.015
ILLESHEIM AAF WBAN#34190	0.280	0.012	0.014
KITZINGEN AAF WBAN#34191	0.249	0.003	0.011
NURNBERG WBAN#34177	0.295	0.004	0.012
COLEMAN AAF WBAN#34068	0.403	0.035	0.022
WERTHEIM AAF WBAN#34076	0.415	0.004	0.015
SCHWAEBISCH HALL AAF WBAN#34074	0.436	0.037	0.020
SEMBACH AB WBAN#34056	0.286	0.006	0.012
SIEGENBERG GUNNERY RANGE WBAN#34199	0.634	0.251	0.055
ECHTERDINGEN APRT WBAN#34041	0.228	0.000	0.010

Table 4.1 Overall Measures of Goodness of Fit
 (All Months and Times of Day)

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ANSBACH AAF WBAN034172

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.06456942	0.07330219	0.22937129	0.22312200	0.12947980	0.11474740	0.12306390	0.10987720
BETA	1.47410905	1.56444705	1.05806899	1.03742099	1.21440899	1.24333501	1.30121195	1.14434695
RMS	0.031	0.024	0.015	0.022	0.021	0.019	0.015	0.028
P(E>.01)	0.643	0.500	0.214	0.857	0.643	0.643	0.571	0.786
FEB								
ALPHA	0.17763050	0.15824400	0.13253769	0.14109720	0.08520614	0.06971567	0.08589279	0.14211350
BETA	1.17025900	1.24309001	1.13409603	0.99512321	1.14610696	1.17601001	1.26075304	1.23046100
RMS	0.067	0.046	0.021	0.017	0.012	0.011	0.021	0.050
P(E>.01)	0.857	0.714	0.714	0.429	0.500	0.284	0.714	0.786
MAR								
ALPHA	0.03213194	0.05304621	0.12158740	0.08101211	0.04355339	0.02808815	0.02863396	0.02771120
BETA	1.12076199	1.24308502	0.93767017	0.95744711	1.07708301	1.19450200	1.23794994	1.22241998
RMS	0.025	0.020	0.014	0.016	0.012	0.009	0.013	0.019
P(E>.01)	0.714	0.571	0.429	0.443	0.714	0.286	0.429	0.500
APR								
ALPHA	0.00605957	0.04628947	0.05555320	0.02304538	0.00717268	0.00336170	0.00261905	0.00002055
BETA	1.07998002	0.43154931	1.13631777	1.40272403	1.82084000	2.03885889	1.99478495	4.10931185
RMS	0.008	0.006	0.012	0.006	0.005	0.002	0.004	0.002
P(E>.01)	0.214	0.143	0.286	0.143	0.071	0.000	0.071	0.000
MAY								
ALPHA	0.00006673	0.04238257	0.04143640	0.01010349	0.00092742	0.00033589	0.00052517	0.00008937
BETA	3.97185707	1.51518500	1.25225902	1.70616305	2.64945412	2.95239401	2.60915811	3.11468897
RMS	0.006	0.018	0.009	0.005	0.002	0.001	0.003	0.003
P(E>.01)	0.143	0.643	0.214	0.000	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.02674026	0.05940290	0.04897495	0.01791777	0.00355894	0.00179408	0.00268817	0.05355820
BETA	0.75658381	0.75738901	1.14412403	1.44841599	1.77716794	2.24115300	2.11405394	0.76798342
RMS	0.018	0.010	0.009	0.007	0.003	0.004	0.005	0.022
P(E>.01)	0.714	0.214	0.286	0.143	0.000	0.143	0.071	0.786
JUL								
ALPHA	0.00100049	0.00285375	0.03189728	0.00485118	0.00468129	0.00657438	0.00824075	0.00100049
BETA	0.00000000	2.19009803	1.38263404	1.89301002	1.32422798	1.24043075	1.66787265	0.00000000
RMS	0.012	0.012	0.005	0.006	0.002	0.003	0.003	0.009
P(E>.01)	0.071	0.571	0.071	0.143	0.000	0.000	0.000	0.071
AUG								
ALPHA	0.00010477	0.03014027	0.09915415	0.01976918	0.00671796	0.00153629	0.00098024	0.00054281
BETA	3.849989309	1.07189904	0.90674353	1.57676196	1.74191499	2.51889801	2.55405593	2.62370610
RMS	0.002	0.005	0.011	0.009	0.004	0.002	0.002	0.005
P(E>.01)	0.000	0.000	0.357	0.214	0.000	0.000	0.000	0.071
SEP								
ALPHA	0.06719398	0.14699811	0.14919230	0.02946198	0.00533776	0.00358617	0.00081505	0.00001268
BETA	0.27027839	0.32714987	0.89502740	1.48516905	2.02417897	2.04405977	2.45953588	4.90594215
RMS	0.006	0.007	0.017	0.009	0.005	0.002	0.005	0.010
P(E>.01)	0.143	0.214	0.357	0.071	0.000	0.000	0.071	0.714
OCT								
ALPHA	0.04666097	0.11236180	0.20903110	0.18029121	0.03701634	0.01007603	0.02230238	0.00052479
BETA	0.72472888	0.40194331	0.57198411	0.71988952	1.34671903	1.38424499	1.59183002	3.50319004
RMS	0.033	0.011	0.022	0.014	0.008	0.008	0.011	0.006
P(E>.01)	0.857	0.500	0.786	0.643	0.214	0.214	0.429	0.071
NOV								
ALPHA	0.17168240	0.19170921	0.23197411	0.21747459	0.12133560	0.11028080	0.10974960	0.09624730
BETA	0.57392311	0.59218528	0.78488111	0.71170551	0.92437002	0.85390431	0.97441150	0.7193981
RMS	0.022	0.031	0.022	0.009	0.007	0.012	0.013	0.022
P(E>.01)	0.500	0.857	0.786	0.357	0.214	0.500	0.429	0.571
DEC								
ALPHA	0.29817119	0.24912781	0.21293330	0.18847550	0.12639830	0.13207740	0.15743260	0.29361239
BETA	0.67793930	0.75180447	0.93932378	1.01331699	1.09658504	1.11320400	1.10841405	0.76760468
RMS	0.032	0.037	0.022	0.017	0.018	0.012	0.013	0.036
P(E>.01)	0.714	0.786	0.643	0.429	0.714	0.357	0.571	0.714

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BAD KREUZNACH AAF WBAN#34070

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.11174690	0.19307740	0.23475300	0.17679520	0.14706420	0.20003170	0.888888888	0.888888888
BETA	1.25086796	1.06113601	0.89980632	0.97572452	0.99975878	1.05325401	0.888888888	0.888888888
RMS	0.030	0.021	0.012	0.016	0.013	0.025	0.025	0.025
P(E>.01)	0.571	0.286	0.286	0.643	0.429	0.643	0.643	0.643
FEB								
ALPHA	0.10798780	0.17203130	0.19287020	0.11489620	0.10619540	0.08502939	0.888888888	0.888888888
BETA	1.32056701	0.98542821	0.91509879	1.05610502	0.99148238	1.08845078	0.888888888	0.888888888
RMS	0.024	0.014	0.016	0.020	0.012	0.012	0.012	0.012
P(E>.01)	0.643	0.357	0.500	1.000	0.357	0.500	0.500	0.500
MAR								
ALPHA	0.09784192	0.10201520	0.09107923	0.03351282	0.01594595	0.01469692	0.888888888	0.888888888
BETA	1.49105000	1.24936596	1.22281396	1.54091895	1.75225306	1.39327878	0.888888888	0.888888888
RMS	0.050	0.019	0.018	0.012	0.004	0.011	0.011	0.011
P(E>.01)	0.571	0.357	0.714	0.500	0.143	0.429	0.888888888	0.888888888
APR								
ALPHA	0.05549959	0.03337309	0.01312715	0.00187247	0.00031397	0.00227532	0.00518631	0.58617604
BETA	1.49128795	1.64245895	1.99795304	2.65784597	3.37952399	2.31344199	1.58617604	1.58617604
RMS	0.023	0.011	0.009	0.006	0.003	0.004	0.030	0.030
P(E>.01)	0.857	0.357	0.214	0.071	0.000	0.000	0.000	0.429
MAY								
ALPHA	0.01036571	0.01740132	0.00352011	0.00031504	0.00008478	0.00009206	0.888888888	0.888888888
BETA	2.28764796	1.82275200	2.3957607	3.24692893	3.75714898	3.81381372	0.888888888	0.888888888
RMS	0.023	0.012	0.003	0.002	0.001	0.002	0.002	0.002
P(E>.01)	0.786	0.214	0.000	0.000	0.000	0.000	0.000	0.888888888
JUN								
ALPHA	0.00454430	0.01147825	0.00191008	0.00027139	0.00001553	0.00001306	0.888888888	0.888888888
BETA	2.64644196	2.11019411	2.80144000	3.27793288	4.37267780	3.31040404	0.888888888	0.888888888
RMS	0.008	0.007	0.007	0.003	0.001	0.001	0.001	0.001
P(E>.01)	0.214	0.143	0.143	0.000	0.000	0.000	0.000	0.888888888
JUL								
ALPHA	0.00445387	0.01571341	0.00254873	0.00007422	0.00018076	0.00030837	0.888888888	0.888888888
BETA	2.58919811	1.87371675	2.59445790	4.05145597	3.33318400	2.77404904	0.888888888	0.888888888
RMS	0.019	0.010	0.003	0.001	0.001	0.003	0.003	0.003
P(E>.01)	0.357	0.143	0.000	0.000	0.000	0.000	0.000	0.888888888
AUG								
ALPHA	0.01539831	0.03619542	0.00430574	0.00123482	0.00058062	0.00042048	0.888888888	0.888888888
BETA	2.10513210	1.63245201	2.31749204	2.72853899	2.83681393	2.87008500	0.888888888	0.888888888
RMS	0.017	0.008	0.006	0.002	0.002	0.001	0.001	0.001
P(E>.01)	0.500	0.214	0.143	0.000	0.000	0.000	0.000	0.888888888
SEP								
ALPHA	0.17207110	0.21195900	0.08948924	0.01817829	0.00497071	0.01464657	0.888888888	0.888888888
BETA	1.05939994	0.91560492	1.23308098	1.46941605	2.11133507	1.45935194	0.888888888	0.888888888
RMS	0.026	0.017	0.017	0.009	0.006	0.004	0.004	0.004
P(E>.01)	0.714	0.571	0.500	0.143	0.071	0.000	0.000	0.888888888
OCT								
ALPHA	0.29020980	0.37341670	0.28221121	0.08813152	0.05956554	0.11719750	0.888888888	0.888888888
BETA	0.05499108	0.40222858	0.74579263	1.18912196	1.23348294	1.01204689	0.888888888	0.888888888
RMS	0.039	0.024	0.010	0.016	0.012	0.022	0.022	0.022
P(E>.01)	0.857	0.714	0.429	0.786	0.500	0.857	0.857	0.857
NOV								
ALPHA	0.14040920	0.18302390	0.20824121	0.12112130	0.11049500	0.13985430	0.888888888	0.888888888
BETA	1.10257697	0.74828562	0.90034157	1.09983695	1.06507194	1.15089297	0.888888888	0.888888888
RMS	0.041	0.018	0.013	0.011	0.011	0.014	0.014	0.014
P(E>.01)	0.857	0.643	0.429	0.429	0.286	0.571	0.571	0.571
DEC								
ALPHA	0.15530070	0.14346031	0.18738011	0.13894551	0.13542770	0.15545690	0.888888888	0.888888888
BETA	1.08264899	1.17021094	0.97770977	1.09664202	1.06585195	1.11464405	0.888888888	0.888888888
RMS	0.040	0.017	0.020	0.019	0.018	0.020	0.020	0.020
P(E>.01)	0.929	0.500	0.714	0.643	0.500	0.714	0.714	0.714

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BAD TOLZ AAF WBNM74197

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.14663930	0.14664610	0.12222340	0.08158380	0.08434990	0.15342867	0.00000000	
BETA	0.90270822	0.82474581	0.82481241	0.94238943	0.9569142	0.87924959	0.00000000	
RMS	0.021	0.024	0.032	0.024	0.020	0.020	0.019	
P(E>.01)	0.857	0.929	1.000	0.786	0.857	0.643	0.595	
FEB								
ALPHA	0.12256330	0.09182931	0.0821484	0.04335881	0.06013340	0.0931947	0.00344025	
BETA	0.83250070	0.83904462	0.84938252	0.92947781	0.97369832	0.82614091	2.96497512	
RMS	0.035	0.024	0.024	0.015	0.012	0.027	0.047	
P(E>.01)	0.929	0.857	0.929	0.786	0.500	0.857	0.500	
MAR								
ALPHA	0.13198221	0.15012410	0.11813150	0.08201533	0.08123180	0.09070197	0.00000000	
BETA	0.98494262	0.78411400	0.8572520	1.01562790	0.73812299	0.4531010	0.00000000	
RMS	0.015	0.025	0.033	0.025	0.015	0.022	0.008	
P(E>.01)	0.888	0.643	0.857	0.929	0.714	0.857	0.888	
APR								
ALPHA	0.04873482	0.07023032	0.07467734	0.04799834	0.04144418	0.03860267	0.04107734	0.02484727
BETA	0.95335752	0.93480467	0.97332591	1.11230898	1.0268494	1.07332599	1.15743897	1.41793704
RMS	0.027	0.014	0.016	0.011	0.010	0.009	0.007	0.012
P(E>.01)	0.857	0.857	0.786	0.429	0.571	0.286	0.214	0.443
MAY								
ALPHA	0.00026866	0.03109119	0.02806740	0.01443395	0.00957979	0.01418053	0.00789986	0.00242072
BETA	3.74193690	1.14593697	1.21164095	1.48720300	1.62064397	1.27891347	1.34000998	2.53735709
RMS	0.004	0.008	0.004	0.007	0.004	0.004	0.004	0.012
P(E>.01)	0.000	0.214	0.000	0.143	0.000	0.000	0.000	0.264
JUN								
ALPHA	0.00108421	0.03247028	0.01533406	0.00549523	0.00218586	0.00139979	0.00313719	0.00672320
BETA	4.03934813	1.31900704	1.52126974	1.85535804	2.2196304	2.56112700	2.69045100	2.10548306
RMS	0.058	0.007	0.005	0.005	0.003	0.002	0.005	0.045
P(E>.01)	0.429	0.286	0.000	0.143	0.000	0.000	0.071	0.427
JUL								
ALPHA	0.05594033	0.01081415	0.00089166	0.00286001	0.00520359	0.00180906	0.00000000	
BETA	0.98053932	1.77699975	2.87135792	1.87911975	1.39645100	1.97981999	0.00000000	
RMS	0.010	0.008	0.004	0.003	0.004	0.003	0.003	0.008
P(E>.01)	0.888	0.357	0.286	0.000	0.000	0.143	0.000	0.888
AUG								
ALPHA	0.08188294	0.03780125	0.01084252	0.00305529	0.00078741	0.00480482	0.00004084	
BETA	0.81492728	1.21168194	1.74063599	2.112366200	2.87212693	1.97513998	3.74633712	
RMS	0.013	0.009	0.005	0.005	0.004	0.004	0.016	
P(E>.01)	0.500	0.214	0.071	0.071	0.000	0.071	0.357	
SEP								
ALPHA	0.07197345	0.15755370	0.10441120	0.02914990	0.00773648	0.00670939	0.01993391	0.02135947
BETA	1.20920102	0.86988258	0.73693520	1.27944696	1.83047605	1.92250001	1.47954607	1.97540903
RMS	0.020	0.021	0.010	0.007	0.005	0.006	0.007	0.011
P(E>.01)	0.714	0.571	0.286	0.214	0.071	0.143	0.214	0.357
OCT								
ALPHA	0.12829380	0.13884240	0.06414863	0.03041121	0.02927417	0.03207003	0.00000000	
BETA	0.56530571	0.63178778	0.95592332	1.70421002	1.13569200	1.04518197	0.00000000	
RMS	0.019	0.009	0.015	0.013	0.013	0.007	0.008	
P(E>.01)	0.643	0.357	0.714	0.571	0.500	0.143	0.888	
NOV								
ALPHA	0.17057820	0.14236140	0.11749840	0.08963454	0.11519240	0.15091410	0.00000000	
BETA	0.69727618	0.70646994	0.84037763	0.94892041	0.79476422	0.70039062	0.00000000	
RMS	0.019	0.013	0.016	0.020	0.012	0.012	0.008	
P(E>.01)	0.357	0.500	0.500	0.786	0.500	0.500	0.888	
DEC								
ALPHA	0.11498820	0.13429051	0.13542120	0.09356947	0.15954639	0.20047221	0.00000000	
BETA	0.72647791	0.84474757	0.82078216	0.9721282	0.76230132	0.74597341	0.00000000	
RMS	0.024	0.015	0.024	0.021	0.026	0.015	0.008	
P(E>.01)	0.714	0.571	1.000	0.929	0.857	0.571	0.888	

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BAUMHOLDER AAF WBAN#34677

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.58957070	0.35903178	0.46176061	0.29513791	0.36838771	0.48161810	0.88888888	0.88888888
BETA	1.64816499	1.23678994	1.04453301	1.04484404	0.98652952	1.34586704	0.88888888	0.88888888
RMS	0.068	0.061	0.051	0.022	0.034	0.041	0.041	0.041
P(E>.01)	0.8888	1.000	0.929	1.000	0.786	0.857	0.714	0.8888
FEB								
ALPHA	0.36328210	0.32885101	0.25857639	0.15314691	0.14845300	0.14360567	0.88888888	0.88888888
BETA	1.17431994	1.09707499	1.04102099	1.07567204	1.04670703	1.33271003	0.88888888	0.88888888
RMS	0.057	0.041	0.043	0.028	0.021	0.037	0.037	0.037
P(E>.01)	0.8888	0.786	0.857	0.714	0.714	0.786	0.786	0.8888
MAR								
ALPHA	0.24933367	0.19313159	0.09227934	0.03919517	0.03230294	0.04424475	0.88888888	0.88888888
BETA	1.33201599	1.16514695	1.35846494	1.60071899	1.66519201	1.90200400	0.88888888	0.88888888
RMS	0.048	0.032	0.019	0.010	0.015	0.025	0.025	0.025
P(E>.01)	0.8888	0.857	0.786	0.571	0.286	0.357	0.786	0.8888
APR								
ALPHA	0.13993370	0.10299550	0.03749477	0.01905010	0.01858894	0.03552574	0.88888888	0.88888888
BETA	1.15362904	1.23192301	1.54973602	1.64473601	1.73517099	1.78742600	0.88888888	0.88888888
RMS	0.016	0.017	0.017	0.007	0.008	0.015	0.015	0.015
P(E>.01)	0.8888	0.571	0.714	0.500	0.143	0.143	0.571	0.8888
MAY								
ALPHA	0.12005980	0.06794928	0.01924183	0.00825830	0.00520460	0.00948037	0.88888888	0.88888888
BETA	1.06598794	1.26942197	1.69392800	1.89218903	2.09043097	2.06728101	0.88888888	0.88888888
RMS	0.025	0.018	0.012	0.004	0.004	0.011	0.011	0.011
P(E>.01)	0.8888	0.714	0.357	0.286	0.000	0.357	0.8888	0.8888
JUN								
ALPHA	0.14291090	0.07130180	0.01939069	0.00953355	0.00487917	0.01641373	0.88888888	0.88888888
BETA	1.09446106	1.39544294	1.79421604	1.88204300	2.23979592	1.33425000	0.88888888	0.88888888
RMS	0.031	0.016	0.009	0.004	0.003	0.019	0.019	0.019
P(E>.01)	0.8888	0.643	0.500	0.286	0.000	0.357	0.8888	0.8888
JUL								
ALPHA	0.10071190	0.04593314	0.02074984	0.01553338	0.01402874	0.01835259	0.88888888	0.88888888
BETA	1.21103096	1.45892096	1.62405503	1.52972400	1.50077498	1.87831700	0.88888888	0.88888888
RMS	0.026	0.013	0.011	0.003	0.007	0.017	0.017	0.017
P(E>.01)	0.8888	0.857	0.500	0.214	0.000	0.143	0.357	0.8888
AUG								
ALPHA	0.22368907	0.12200350	0.02303325	0.00887294	0.00964418	0.01024330	0.23410410	0.23410410
BETA	0.89110839	1.09356797	1.72951102	1.91368604	1.84365702	2.11455789	0.82668310	0.82668310
RMS	0.027	0.019	0.009	0.006	0.007	0.006	0.147	0.147
P(E>.01)	0.8888	0.714	0.571	0.214	0.143	0.071	0.143	1.000
SEP								
ALPHA	0.40013200	0.28014579	0.05736875	0.03985101	0.02696846	0.04246186	0.88888888	0.88888888
BETA	0.94684381	1.00329497	1.48071597	1.84442094	1.51518202	1.92680097	0.88888888	0.88888888
RMS	0.038	0.024	0.013	0.067	0.011	0.041	0.041	0.041
P(E>.01)	0.8888	0.929	0.714	0.571	0.857	0.357	0.643	0.8888
OCT								
ALPHA	0.56774500	0.47754991	0.18802740	0.10730120	0.10497940	0.36700431	0.88888888	0.88888888
BETA	0.923467548	0.68728149	1.01491404	1.07136903	1.09517100	1.15907395	0.88888888	0.88888888
RMS	0.037	0.019	0.015	0.020	0.025	0.072	0.072	0.072
P(E>.01)	0.8888	0.857	0.786	0.714	0.500	0.714	0.929	0.8888
NOV								
ALPHA	0.46879300	0.45391110	0.34512210	0.23170300	0.23772750	0.22711679	0.88888888	0.88888888
BETA	0.90499920	0.80012721	0.85514408	0.94877281	0.87673831	1.76189004	0.88888888	0.88888888
RMS	0.054	0.044	0.038	0.032	0.034	0.063	0.063	0.063
P(E>.01)	0.8888	0.786	0.786	0.857	0.857	0.786	0.857	0.8888
DEC								
ALPHA	0.47273859	0.42037551	0.37649749	0.34221250	0.40739799	0.40662709	0.37330541	0.37330541
BETA	1.18318999	0.98713988	0.94009888	0.94944678	0.96664518	0.96881253	1.52824497	1.52824497
RMS	0.081	0.054	0.049	0.052	0.048	0.048	0.048	0.048
P(E>.01)	0.8888	0.786	1.000	0.929	1.000	0.929	0.929	1.000

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BITBURG AB USAH034049

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1300-1700	1800-2000	2100-2300
ALPHA	0.13070001	0.15457000	0.15511569	0.21533890	0.15530460	0.12183270	0.10372400	0.10508400
BETA	1.01231599	0.95281518	0.93253341	0.84127700	0.95633698	1.03010204	1.05273760	1.00784605
RMS	0.017	0.020	0.016	0.014	0.012	0.012	0.012	0.018
P(E>.01)	0.714	0.714	0.429	0.429	0.500	0.500	0.571	0.784
FEB	.	.	.	.	.	.	.	.
ALPHA	0.08675987	0.12924220	0.14897980	0.18670249	0.11374400	0.07019673	0.06877985	0.06899746
BETA	1.03045499	0.90489382	0.89480748	0.87808567	0.99204242	1.09420702	1.11517094	1.06211197
RMS	0.012	0.012	0.012	0.015	0.008	0.010	0.010	0.015
P(E>.01)	0.500	0.429	0.500	0.371	0.143	0.286	0.286	0.714
MAR	.	.	.	.	.	.	.	.
ALPHA	0.03424456	0.06826741	0.10350320	0.07305990	0.01548987	0.01033824	0.02253387	0.02143019
BETA	1.35452497	1.09411204	1.09304798	1.37028599	1.86170995	1.81809103	1.44888306	1.42047095
RMS	0.006	0.008	0.014	0.014	0.010	0.005	0.006	0.006
P(E>.01)	0.143	0.143	0.643	0.643	0.286	0.071	0.143	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.01229624	0.02866239	0.04985845	0.02747940	0.00967774	0.00597143	0.01034293	0.00771148
BETA	1.43464499	1.21543494	1.29941104	1.38532805	1.42245205	1.49544199	1.48099993	1.57973400
RMS	0.002	0.008	0.012	0.009	0.005	0.004	0.003	0.004
P(E>.01)	0.000	0.286	0.286	0.214	0.071	0.071	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00840804	0.04020772	0.05807501	0.01008349	0.00483434	0.00277043	0.00492528	0.00271283
BETA	1.68071306	1.21218395	1.26861000	1.73939805	1.71176505	1.72345297	1.64705503	2.03118110
RMS	0.004	0.011	0.013	0.008	0.002	0.005	0.002	0.005
P(E>.01)	0.071	0.500	0.500	0.286	0.000	0.071	0.000	0.071
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00984192	0.02819766	0.04422632	0.00688187	0.00173382	0.00216210	0.00283303	0.00479266
BETA	1.51921701	1.44012105	1.46135998	2.03790593	2.24235201	2.01812003	1.91594803	1.81412196
RMS	0.007	0.007	0.010	0.006	0.004	0.003	0.004	0.006
P(E>.01)	0.143	0.071	0.357	0.143	0.000	0.000	0.000	0.071
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00336971	0.02478568	0.03805438	0.00917738	0.00137171	0.00242821	0.00039750	0.00029453
BETA	1.99910970	1.40038705	1.92415297	1.89772403	2.22567391	1.72473001	2.03931494	3.04099107
RMS	0.002	0.007	0.007	0.007	0.003	0.002	0.002	0.001
P(E>.01)	0.000	0.214	0.214	0.286	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.01662500	0.02715961	0.05381444	0.01025360	0.00214705	0.00098485	0.00353064	0.00517082
BETA	1.32657397	1.42058301	1.39785397	2.02877402	2.17819479	2.34032893	1.88700794	1.76645497
RMS	0.004	0.009	0.015	0.010	0.005	0.002	0.004	0.004
P(E>.01)	0.071	0.143	0.429	0.286	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.03543667	0.08039172	0.14933141	0.06195579	0.00793448	0.00328394	0.00490490	0.01004638
BETA	1.17969000	0.97165018	0.98512058	1.32863402	1.84764675	1.91620600	1.82797299	1.57547200
RMS	0.010	0.009	0.019	0.014	0.014	0.009	0.004	0.005
P(E>.01)	0.286	0.286	0.786	0.786	0.143	0.000	0.000	0.071
OCT	.	.	.	.	.	.	.	.
ALPHA	0.10922610	0.19458330	0.27031821	0.19077650	0.04595553	0.01575120	0.01983350	0.04103539
BETA	0.89150542	0.48438688	0.64320731	0.83474478	1.24681101	1.63459301	1.41946601	1.25207996
RMS	0.012	0.012	0.014	0.017	0.011	0.008	0.011	0.013
P(E>.01)	0.571	0.643	0.500	0.643	0.286	0.214	0.357	0.571
NOV	.	.	.	.	.	.	.	.
ALPHA	0.13446030	0.17399349	0.20195700	0.20734610	0.12611609	0.09470630	0.09155690	0.10320950
BETA	0.69605511	0.65432010	0.63882160	0.69295073	0.77083671	0.8520472	0.80259793	0.74659328
RMS	0.016	0.019	0.015	0.017	0.016	0.010	0.016	0.017
P(E>.01)	0.786	0.786	0.643	0.643	0.643	0.357	0.714	0.714
DEC	.	.	.	.	.	.	.	.
ALPHA	0.20187880	0.21776780	0.21051531	0.22602820	0.17417639	0.18226020	0.16314740	0.16524370
BETA	0.68626731	0.69387400	0.73364048	0.82249290	0.87464211	0.80322558	0.77047980	0.70491973
RMS	0.014	0.017	0.013	0.013	0.013	0.013	0.018	0.012
P(E>.01)	0.429	0.714	0.714	0.429	0.371	0.500	0.786	0.500

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

COLEMAN AAF UBAH074068

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.13215501	0.14633690	0.23571900	0.14993710	0.16115780	0.12912750	0.10072420	
BETA	1.33109797	1.30842996	1.16204298	1.20010304	1.20968103	1.34996402	1.70127499	
RMS	0.037	0.023	0.016	0.021	0.015	0.011	0.085	
P(E>.01)	0.714	0.500	0.500	0.643	0.429	0.357	0.786	
FEB	.	.	.	.	.	.	.	.
ALPHA	0.11562110	0.14688021	0.19012350	0.11145230	0.08594072	0.06649105	0.028888888	
BETA	1.36446998	1.05723903	1.11109900	1.22023499	1.22462296	1.37902904	0.888888888	
RMS	0.031	0.019	0.015	0.011	0.021	0.010	0.8888	
P(E>.01)	0.643	0.500	0.500	0.357	0.371	0.357	0.8888	
MAR	.	.	.	.	.	.	.	.
ALPHA	0.07024789	0.10749780	0.09072002	0.02829161	0.01305340	0.02507661	0.00113011	
BETA	1.78522098	1.38387203	1.45591988	1.02472801	2.07432008	1.73969400	4.13401318	
RMS	0.041	0.016	0.017	0.013	0.005	0.012	0.027	
P(E>.01)	1.000	0.429	0.643	0.500	0.143	0.357	0.429	
APR	.	.	.	.	.	.	.	.
ALPHA	0.02932604	0.05332159	0.02563056	0.00349916	0.00128545	0.00231683	0.000000000	
BETA	2.15813398	1.70088100	1.94797397	2.49586802	2.94433401	2.70725799	0.888888888	
RMS	0.029	0.013	0.009	0.005	0.003	0.004	0.8888	
P(E>.01)	0.729	0.500	0.214	0.071	0.000	0.071	0.8888	
MAY	.	.	.	.	.	.	.	.
ALPHA	0.04954067	0.03113177	0.00853976	0.00064173	0.00041507	0.00147179	0.000000000	
BETA	1.99344599	1.93330097	2.42016602	3.33838105	3.00798011	2.61312103	0.888888888	
RMS	0.027	0.016	0.008	0.006	0.004	0.004	0.8888	
P(E>.01)	0.643	0.357	0.143	0.143	0.000	0.071	0.8888	
JUN	.	.	.	.	.	.	.	.
ALPHA	0.05431228	0.03892845	0.02464954	0.00527154	0.00072566	0.00055786	0.000000000	
BETA	1.82896399	1.79113805	1.77066496	2.19014406	3.00157905	3.11060501	0.888888888	
RMS	0.022	0.011	0.009	0.006	0.003	0.002	0.8888	
P(E>.01)	0.714	0.429	0.214	0.143	0.000	0.000	0.8888	
JUL	.	.	.	.	.	.	.	.
ALPHA	0.07755391	0.04204867	0.01349045	0.00098149	0.00067163	0.00001936	0.000000000	
BETA	1.67230594	1.74576495	2.13049507	3.09619808	2.94386792	2.87112999	0.888888888	
RMS	0.012	0.005	0.006	0.005	0.004	0.001	0.8888	
P(E>.01)	0.214	0.071	0.143	0.071	0.071	0.000	0.8888	
AUG	.	.	.	.	.	.	.	.
ALPHA	0.06412821	0.05873544	0.02765200	0.00542188	0.00073582	0.00181567	0.000000000	
BETA	1.54700397	1.66682196	1.82242501	2.25571299	3.00926399	2.49624395	0.888888888	
RMS	0.011	0.007	0.006	0.008	0.003	0.003	0.8888	
P(E>.01)	0.143	0.143	0.143	0.143	0.000	0.000	0.8888	
SEP	.	.	.	.	.	.	.	.
ALPHA	0.18989231	0.27311909	0.09540852	0.02574140	0.00524068	0.00548486	0.000000000	
BETA	1.14594698	0.92699093	1.34155202	1.47019406	2.27769995	2.35263610	0.888888888	
RMS	0.032	0.024	0.010	0.010	0.005	0.005	0.8888	
P(E>.01)	0.786	0.714	0.357	0.357	0.071	0.071	0.8888	
OCT	.	.	.	.	.	.	.	.
ALPHA	0.22956710	0.34987430	0.25264040	0.10269450	0.05825434	0.11404570	0.000000000	
BETA	1.05224001	0.78326011	0.97326112	1.22468901	1.40545297	1.09828804	0.888888888	
RMS	0.028	0.025	0.023	0.019	0.014	0.018	0.8888	
P(E>.01)	0.714	0.714	0.643	0.500	0.429	0.429	0.8888	
NOV	.	.	.	.	.	.	.	.
ALPHA	0.13768920	0.18989600	0.22659110	0.14105950	0.12635580	0.10731180	0.000000000	
BETA	1.24224305	1.00439703	0.98593962	1.08318996	1.13113105	1.14311504	0.888888888	
RMS	0.050	0.021	0.011	0.016	0.015	0.021	0.8888	
P(E>.01)	0.857	0.643	0.357	0.643	0.786	0.786	0.8888	
DEC	.	.	.	.	.	.	.	.
ALPHA	0.15143891	0.09337699	0.14646040	0.12520760	0.12084140	0.08863577	0.07054778	
BETA	1.04987502	1.36760006	1.21735799	1.28013504	1.24688194	1.44263397	1.740008505	
RMS	0.032	0.029	0.014	0.016	0.016	0.020	0.064	
P(E>.01)	0.786	0.857	0.429	0.371	0.357	0.429	0.786	

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ECHTERDINGEN ARPT WBAH034041

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.11313540	0.11706340	0.15300650	0.14642410	0.08393740	0.08967742	0.08634960	0.09971493
BETA	1.07999394	1.07258403	0.97418300	1.09390700	1.29666994	1.28492794	1.28302300	1.16193104
RMS	0.011	0.011	0.011	0.021	0.016	0.017	0.014	0.012
P(E>.01)	0.357	0.360	0.286	0.786	0.500	0.571	0.429	0.357
FEB	.	.	.	.	.	.	.	.
ALPHA	0.07968565	0.09911893	0.15462480	0.13361020	0.05227778	0.06424190	0.07009459	0.06674336
BETA	1.26766601	1.16136303	1.01399100	1.13460398	1.49706900	1.34282694	1.32373703	1.34935904
RMS	0.012	0.011	0.012	0.021	0.011	0.013	0.015	0.015
P(E>.01)	0.429	0.357	0.500	0.786	0.429	0.571	0.429	0.443
MAR	.	.	.	.	.	.	.	.
ALPHA	0.01459057	0.03816660	0.10768890	0.05080137	0.01698603	0.01627414	0.01438972	0.00974351
BETA	1.95004706	1.53017597	1.19014704	1.49795997	1.70813398	1.77081597	1.95134902	2.11138666
RMS	0.006	0.012	0.012	0.009	0.003	0.003	0.004	0.005
P(E>.01)	0.000	0.643	0.357	0.143	0.000	0.000	0.000	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.00864447	0.03305297	0.03796015	0.00818800	0.00368455	0.00329781	0.00449052	0.00340169
BETA	1.70888798	1.38183296	1.48025703	1.07741189	2.24163798	2.21933508	2.21364188	2.32385990
RMS	0.005	0.006	0.006	0.003	0.002	0.001	0.002	0.003
P(E>.01)	0.071	0.000	0.071	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00744403	0.03816320	0.01822453	0.00133032	0.00102646	0.00077267	0.00161109	0.00133587
BETA	1.82539701	1.29101598	1.81565106	2.84104112	2.57384394	7.74017000	2.56345105	2.57175493
RMS	0.008	0.011	0.007	0.001	0.001	0.001	0.003	0.004
P(E>.01)	0.143	0.643	0.143	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00341203	0.01962525	0.00809444	0.00179425	0.00035464	0.00048530	0.00115634	0.00074776
BETA	2.28394508	1.67324495	2.12281299	2.53903198	3.19372702	3.07253103	2.74433398	3.03189993
RMS	0.005	0.007	0.005	0.002	0.001	0.002	0.002	0.003
P(E>.01)	0.000	0.000	0.071	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00323994	0.02516158	0.00984544	0.00070294	0.00076190	0.00070031	0.00097890	0.00051294
BETA	2.13780999	1.36548197	1.93664598	3.04670811	2.61976099	2.55964200	2.64117002	3.04347706
RMS	0.004	0.006	0.006	0.002	0.001	0.001	0.001	0.002
P(E>.01)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00408098	0.03398304	0.02692568	0.00194394	0.00033979	0.00033972	0.00032692	0.00025773
BETA	2.15648499	1.25894499	1.44283903	2.57601309	3.16722509	3.01599598	3.36443800	3.52524590
RMS	0.004	0.011	0.008	0.003	0.003	0.002	0.002	0.003
P(E>.01)	0.071	0.500	0.286	0.000	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.04400204	0.14953449	0.13511330	0.01221024	0.00209972	0.00235128	0.00279450	0.00471591
BETA	1.14270902	1.47637858	0.85997662	1.83516302	2.52596998	2.36746907	2.53481102	2.24007795
RMS	0.019	0.017	0.010	0.003	0.002	0.002	0.003	0.010
P(E>.01)	0.643	0.500	0.429	0.000	0.000	0.000	0.000	0.357
OCT	.	.	.	.	.	.	.	.
ALPHA	0.12820780	0.23449880	0.26130560	0.05881358	0.01167730	0.01852291	0.01654844	0.03994323
BETA	0.86751888	0.42026942	0.70734721	1.39524198	1.97894502	1.79073904	1.98459204	1.51281297
RMS	0.023	0.019	0.010	0.008	0.003	0.005	0.005	0.011
P(E>.01)	0.643	0.897	0.429	0.214	0.000	0.000	0.071	0.357
NOV	.	.	.	.	.	.	.	.
ALPHA	0.09201565	0.11099010	0.14869520	0.04700167	0.04411262	0.06033935	0.05354829	0.07104407
BETA	1.09980500	1.02272904	0.96272677	1.25337303	1.50219905	1.37466041	1.41632795	1.23534298
RMS	0.013	0.017	0.012	0.010	0.007	0.007	0.009	0.011
P(E>.01)	0.500	0.571	0.500	0.286	0.143	0.214	0.286	0.357
DEC	.	.	.	.	.	.	.	.
ALPHA	0.11916780	0.13379601	0.15779100	0.15559800	0.10173970	0.10503860	0.09218594	0.10829360
BETA	1.08817005	1.00432203	0.96279442	1.03583205	1.18012297	1.19981897	1.24931300	1.12742296
RMS	0.013	0.014	0.008	0.016	0.010	0.015	0.009	0.012
P(E>.01)	0.371	0.571	0.143	0.571	0.429	0.429	0.357	0.357

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ERBING AS WBAN034160

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.13736680	0.13916950	0.15055890	0.12891950	0.07869662	0.08888370	0.10820470	0.13066050
BETA	1.17279506	1.15204501	1.11407497	1.15541295	1.31525397	1.28741503	1.25798202	1.20884204
RMS	0.016	0.016	0.014	0.007	0.011	0.009	0.013	0.011
P(E>.01)	0.500	0.643	0.500	0.500	0.286	0.357	0.357	0.429
FEB								
ALPHA	0.13987970	0.19476900	0.21498940	0.14036579	0.04283078	0.04784697	0.09450246	0.10934260
BETA	1.09797394	0.92005457	0.90368491	1.08483694	1.34940801	1.29974699	1.24446698	1.22427595
RMS	0.015	0.019	0.012	0.010	0.009	0.006	0.012	0.012
P(E>.01)	0.643	0.643	0.371	0.357	0.286	0.071	0.300	0.357
MAR								
ALPHA	0.01734319	0.04306727	0.08415511	0.03397864	0.00796162	0.00576874	0.00828394	0.01220309
BETA	1.97196498	1.52343798	1.18530500	1.32265905	1.98536599	2.06224397	2.13546300	2.05313396
RMS	0.008	0.020	0.014	0.010	0.007	0.004	0.006	0.007
P(E>.01)	0.214	0.929	0.500	0.214	0.071	0.000	0.143	0.214
APR								
ALPHA	0.00367665	0.01529876	0.02287625	0.006478511	0.00476663	0.00264622	0.00394362	0.00375999
BETA	2.48328900	1.90794078	1.72469997	1.98236501	1.77661896	2.04621194	2.13363889	2.32561398
RMS	0.007	0.013	0.012	0.004	0.004	0.001	0.005	0.006
P(E>.01)	0.214	0.500	0.429	0.000	0.000	0.000	0.071	0.071
MAY								
ALPHA	0.00195958	0.01923366	0.01401941	0.00235990	0.00049844	0.00013310	0.00093325	0.00056352
BETA	2.82607889	1.76185075	1.87162602	2.41041803	2.80279398	3.60642695	2.84052610	3.27114391
RMS	0.005	0.013	0.010	0.003	0.002	0.002	0.003	0.005
P(E>.01)	0.000	0.786	0.357	0.000	0.000	0.000	0.000	0.143
JUN								
ALPHA	0.00134422	0.00922903	0.00312043	0.00009759	0.00007403	0.00026847	0.00074507	0.00094382
BETA	2.99063611	2.15698004	2.66637207	3.55777998	3.89193895	3.16717505	2.84908700	3.57954897
RMS	0.005	0.008	0.005	0.004	0.001	0.001	0.002	0.005
P(E>.01)	0.000	0.143	0.000	0.000	0.000	0.000	0.000	0.000
JUL								
ALPHA	0.00182353	0.00727120	0.00397586	0.00196470	0.00234866	0.00337229	0.00498351	0.00108346
BETA	2.69119692	2.18132997	2.52902889	2.41381502	1.93609405	1.74485397	1.72228801	2.92570210
RMS	0.006	0.007	0.008	0.004	0.001	0.002	0.004	0.007
P(E>.01)	0.071	0.214	0.143	0.000	0.000	0.000	0.000	0.143
AUG								
ALPHA	0.00190390	0.01420572	0.01904886	0.00203343	0.00077222	0.00158784	0.00113442	0.00026048
BETA	2.74990892	1.89980602	1.70811796	2.51445201	2.65005392	2.18377090	2.73158598	3.56257296
RMS	0.010	0.015	0.011	0.001	0.002	0.004	0.003	0.005
P(E>.01)	0.643	0.786	0.357	0.000	0.000	0.071	0.000	0.143
SEP								
ALPHA	0.01657395	0.07488482	0.09483935	0.01649047	0.00077476	0.00123995	0.00293896	0.00410920
BETA	1.80789697	1.10770998	1.00371301	1.58016598	2.81477499	2.42633889	2.41057491	2.45636610
RMS	0.018	0.029	0.023	0.006	0.004	0.002	0.004	0.005
P(E>.01)	0.786	0.857	0.857	0.071	0.000	0.000	0.071	0.143
OCT								
ALPHA	0.14865629	0.20046791	0.24954490	0.08891930	0.01935402	0.02439584	0.05010767	0.08711309
BETA	0.98673442	0.87649892	0.708611930	1.12260095	1.67592798	1.57554400	1.41980004	1.21005894
RMS	0.024	0.034	0.017	0.014	0.004	0.010	0.015	0.026
P(E>.01)	0.857	0.786	0.371	0.429	0.000	0.286	0.371	0.786
NOV								
ALPHA	0.15200460	0.15274850	0.19895421	0.11246150	0.03495937	0.07903480	0.10763700	0.14733151
BETA	1.18079503	1.17406779	0.98574862	1.20771697	1.40405390	1.30961299	1.21256006	1.04072905
RMS	0.042	0.042	0.030	0.024	0.015	0.011	0.028	0.041
P(E>.01)	0.857	0.929	0.714	0.857	0.371	0.357	0.786	0.643
DEC								
ALPHA	0.29124579	0.30088139	0.29618260	0.25745511	0.18073340	0.21323550	0.22362959	0.25743431
BETA	0.82052869	0.80197331	0.78347480	0.84524383	0.74491702	0.95070338	0.98591298	0.99009303
RMS	0.018	0.023	0.022	0.013	0.012	0.011	0.020	0.014
P(E>.01)	0.500	0.871	0.571	0.500	0.286	0.357	0.714	0.500

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

FEUCHT AAF URAH024198

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.17001690	0.16906190	0.19235790	0.19947390	0.14083150	0.13599550	0.20029280	0.19403239
BETA	1.28996394	1.36816299	1.24925399	1.17751502	1.15080297	1.15201199	1.13931704	1.23307906
RMS	0.033	0.034	0.039	0.021	0.018	0.020	0.040	0.040
P(E>.01)	0.857	0.857	0.643	0.786	0.714	0.500	0.857	0.786
FEB	.	.	.	.	.	.	.	.
ALPHA	0.10599610	0.11325470	0.14640930	0.13595440	0.04526191	0.05060014	0.05746987	0.03658390
BETA	1.22024798	1.31747000	1.27511597	1.28715704	1.14756498	1.17426102	1.44003501	1.80771194
RMS	0.022	0.031	0.032	0.017	0.009	0.014	0.013	0.021
P(E>.01)	0.857	0.786	0.714	0.429	0.143	0.300	0.357	0.714
MAR	.	.	.	.	.	.	.	.
ALPHA	0.03040956	0.05321331	0.10448280	0.05234234	0.02370186	0.01174670	0.01770170	0.02832942
BETA	1.64323604	1.43380702	1.19110203	1.44961605	1.52243162	1.72471905	1.78104305	1.54948294
RMS	0.019	0.021	0.015	0.012	0.013	0.006	0.009	0.015
P(E>.01)	0.643	0.643	0.643	0.429	0.357	0.143	0.357	0.429
APR	.	.	.	.	.	.	.	.
ALPHA	0.03314924	0.06378205	0.07353448	0.03013982	0.014691322	0.008040408	0.01555437	0.01774722
BETA	1.58927405	1.36302197	1.21088398	1.34691000	1.31423293	1.32360496	1.39617695	1.62443399
RMS	0.020	0.031	0.017	0.006	0.007	0.003	0.010	0.024
P(E>.01)	0.429	0.786	0.500	0.000	0.143	0.000	0.357	0.571
MAY	.	.	.	.	.	.	.	.
ALPHA	0.02739973	0.04759674	0.03073930	0.00674181	0.00520973	0.00224999	0.00230634	0.02207135
BETA	1.34298098	1.38835704	1.60996977	1.88025004	1.50023200	1.72223794	1.78514600	1.66929362
RMS	0.019	0.025	0.012	0.003	0.002	0.001	0.002	0.008
P(E>.01)	0.643	0.643	0.429	0.000	0.000	0.000	0.000	0.714
JUN	.	.	.	.	.	.	.	.
ALPHA	0.04025852	0.08037747	0.05408155	0.01000707	0.00300677	0.00323091	0.00505313	0.01113395
BETA	1.31973890	1.24038301	1.23867093	1.35710198	1.96504194	1.74003567	1.66430476	1.76694298
RMS	0.018	0.024	0.010	0.005	0.002	0.003	0.004	0.014
P(E>.01)	0.429	0.500	0.357	0.000	0.000	0.000	0.000	0.429
JUL	.	.	.	.	.	.	.	.
ALPHA	0.04151475	0.10931980	0.05915715	0.00673443	0.00104364	0.00040446	0.00965977	0.01108432
BETA	1.53481400	1.15207398	1.33547401	1.88758004	2.34551499	2.84622879	1.49376202	1.96374595
RMS	0.020	0.023	0.010	0.005	0.002	0.001	0.008	0.009
P(E>.01)	0.571	0.429	0.286	0.071	0.000	0.000	0.286	0.214
AUG	.	.	.	.	.	.	.	.
ALPHA	0.01964431	0.02123160	0.15432321	0.03039917	0.00879075	0.00536692	0.00326883	0.00456974
BETA	1.62138295	1.92849600	0.85830247	1.29925001	1.42930000	1.57791203	2.08662510	2.15153003
RMS	0.014	0.017	0.020	0.009	0.004	0.004	0.002	0.010
P(E>.01)	0.571	0.371	0.714	0.214	0.000	0.000	0.000	0.214
SEP	.	.	.	.	.	.	.	.
ALPHA	0.08428642	0.20496800	0.20477860	0.04942334	0.00468199	0.00779881	0.00308722	0.00447347
BETA	1.23977900	0.88756502	0.94181007	1.31274903	1.84742198	1.45460298	2.28798890	2.38962007
RMS	0.025	0.022	0.017	0.009	0.004	0.005	0.003	0.021
P(E>.01)	0.786	0.643	0.571	0.214	0.000	0.071	0.000	0.429
OCT	.	.	.	.	.	.	.	.
ALPHA	0.10148820	0.18537380	0.30108750	0.12035770	0.01393003	0.01081478	0.07064225	0.03065170
BETA	1.25519398	0.99357453	0.79710841	1.11492395	1.94636798	1.04468601	1.82779098	1.77013101
RMS	0.023	0.020	0.023	0.017	0.009	0.003	0.008	0.023
P(E>.01)	0.500	0.500	0.643	0.500	0.143	0.000	0.214	0.357
NOV	.	.	.	.	.	.	.	.
ALPHA	0.18443860	0.31404230	0.14579240	0.12379130	0.04430084	0.09310874	0.15017040	0.21229640
BETA	0.95127928	0.86781059	0.91861689	1.05075705	1.14899598	0.89300573	0.64844792	0.73640440
RMS	0.026	0.029	0.012	0.010	0.011	0.012	0.013	0.012
P(E>.01)	0.643	0.857	0.357	0.214	0.143	0.357	0.714	0.371
DEC	.	.	.	.	.	.	.	.
ALPHA	0.18382770	0.19172210	0.13208710	0.12495620	0.08492929	0.10044410	0.11760880	0.15202260
BETA	1.10278404	1.07350194	1.28011298	1.36357802	1.35404301	1.27273297	1.29347304	1.16073097
RMS	0.049	0.027	0.033	0.034	0.030	0.024	0.038	0.046
P(E>.01)	0.929	0.714	0.929	0.786	0.857	0.714	0.786	0.857

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

	FINTHEM AAF WBAN#34075									
JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300		
ALPHA	0.14302640	0.21302120	0.23431750	0.29698491	0.22741850	0.21747010	0.17553300	0.08504482		
BETA	1.03511202	0.87615601	0.84031302	0.74575422	0.90043962	0.93886441	0.97925287	1.34559403		
RMS	0.022	0.023	0.020	0.011	0.014	0.020	0.022	0.018		
P(E>.01)	0.786	0.643	0.714	0.500	0.500	0.643	0.500	0.643		
FEB	.	.	.	.	.	.	.	.
ALPHA	0.04921670	0.08751150	0.14156060	0.16744751	0.14428841	0.12500151	0.08724941	0.03444000		
BETA	0.74801402	1.04400203	0.87289472	0.87953637	0.91447908	0.91270232	1.00797701	1.38358998		
RMS	0.034	0.011	0.015	0.025	0.024	0.013	0.013	0.021		
P(E>.01)	0.857	0.357	0.429	0.714	0.657	0.429	0.429	0.857		
MAR	.	.	.	.	.	.	.	.
ALPHA	0.00421305	0.03453103	0.10081470	0.10597030	0.05371104	0.03610573	0.03054253	0.01109252		
BETA	2.40289211	1.60639405	1.14067197	1.10127604	1.36001003	1.44375396	1.40931201	2.10997295		
RMS	0.019	0.014	0.020	0.017	0.012	0.007	0.015	0.026		
P(E>.01)	0.500	0.357	0.571	0.429	0.214	0.214	0.571	0.429		
APR	.	.	.	.	.	.	.	.
ALPHA	0.01189093	0.01466432	0.05234602	0.02795721	0.01015023	0.00410424	0.00161471	0.00637934		
BETA	1.90171599	1.87537003	1.30885897	1.63254702	1.95272496	2.24723911	2.57533407	2.13410497		
RMS	0.011	0.015	0.012	0.011	0.007	0.004	0.004	0.011		
P(E>.01)	0.429	0.357	0.284	0.429	0.071	0.000	0.000	0.357		
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00239404	0.02612541	0.02755127	0.00810292	0.00096373	0.00135638	0.00075589	0.00011430		
BETA	2.46116900	1.45528400	1.50127995	2.08577394	2.86841393	2.34476805	2.72281598	4.07536221		
RMS	0.007	0.013	0.016	0.011	0.004	0.003	0.005	0.002		
P(E>.01)	0.214	0.286	0.643	0.357	0.000	0.000	0.000	0.000		
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00193844	0.03945636	0.03092948	0.00509243	0.00060735	0.00043700	0.00164628	0.00166751		
BETA	2.65256810	1.19939899	1.42231202	2.37893891	3.17498398	3.06467902	2.21154094	2.58290601		
RMS	0.013	0.015	0.014	0.005	0.004	0.003	0.002	0.003		
P(E>.01)	0.286	0.500	0.357	0.071	0.000	0.000	0.000	0.000		
JUL	.	.	.	.	.	.	.	.
ALPHA	0.01999389	0.02048744	0.01623031	0.00372119	0.00075327	0.00037175	0.00115639	0.00040518		
BETA	1.27945304	1.63537705	1.82750905	2.57424298	3.70239711	3.19211292	2.52743292	3.32159400		
RMS	0.013	0.016	0.021	0.007	0.003	0.003	0.002	0.008		
P(E>.01)	0.571	0.429	0.643	0.143	0.000	0.000	0.000	0.214		
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00641796	0.04251002	0.05693583	0.01122260	0.00179759	0.00081583	0.00144013	0.00121776		
BETA	1.70834506	1.32530999	1.27771902	2.07537508	2.75315499	2.46578012	2.42379789	2.42291307		
RMS	0.008	0.019	0.013	0.007	0.005	0.004	0.003	0.004		
P(E>.01)	0.143	0.571	0.571	0.143	0.071	0.000	0.000	0.071		
SEP	.	.	.	.	.	.	.	.
ALPHA	0.00649497	0.07224170	0.17756290	0.09097063	0.02532085	0.01332677	0.02304153	0.00922399		
BETA	2.41963199	1.23527706	0.84263837	1.13394701	1.56231797	1.68583202	1.36178398	2.19147601		
RMS	0.030	0.023	0.017	0.012	0.006	0.005	0.009	0.023		
P(E>.01)	0.786	0.714	0.657	0.357	0.143	0.071	0.143	0.500		
OCT	.	.	.	.	.	.	.	.
ALPHA	0.15078600	0.24999310	0.35104561	0.27937129	0.14103121	0.11097970	0.13502941	0.07020209		
BETA	0.63650821	0.39192818	0.50100118	0.67442438	0.91132668	0.93350188	0.79353231	1.08660305		
RMS	0.032	0.026	0.024	0.017	0.012	0.009	0.015	0.019		
P(E>.01)	0.857	0.643	0.643	0.571	0.286	0.214	0.500	0.643		
NOV	.	.	.	.	.	.	.	.
ALPHA	0.11434500	0.14965279	0.19126260	0.25356081	0.22014929	0.21303210	0.19332570	0.10930210		
BETA	0.99572033	0.898668600	0.81118977	0.71127888	0.76919192	0.76474100	0.75668722	1.15603197		
RMS	0.022	0.018	0.017	0.013	0.011	0.014	0.011	0.016		
P(E>.01)	0.643	0.643	0.500	0.500	0.571	0.500	0.429	0.571		
DEC	.	.	.	.	.	.	.	.
ALPHA	0.07155725	0.14500630	0.19082411	0.25774550	0.20589620	0.22398280	0.14179399	0.08642057		
BETA	1.17647195	0.90462132	0.83013189	0.75404153	0.87709433	0.81478202	0.84701238	1.04672204		
RMS	0.030	0.017	0.016	0.014	0.016	0.013	0.011	0.025		
P(E>.01)	0.786	0.643	0.429	0.643	0.643	0.571	0.500	0.857		

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

FULDA AAF WBAN35953

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.04318251	0.14146790	0.14610870	0.18817630	0.11327410	0.09735666	0.07830463	0.0233358
BETA	1.66105700	1.07442204	1.08195496	1.08595800	1.27654696	1.29961395	1.30612101	1.05570395
RMS	0.033	0.021	0.014	0.020	0.012	0.014	0.013	0.023
P(E>.01)	0.714	0.643	0.643	0.643	0.429	0.571	0.500	0.571
FEB	.	.	.	.	.	.	.	.
ALPHA	0.02279788	0.08476718	0.14779070	0.19321060	0.08824722	0.06484297	0.07334901	0.02497313
BETA	1.70497999	1.29352498	0.98624003	0.97805047	1.27243102	1.30280900	1.20210302	1.57266478
RMS	0.015	0.012	0.014	0.014	0.014	0.009	0.026	0.014
P(E>.01)	0.429	0.500	0.571	0.571	0.429	0.357	0.786	0.429
MAR	.	.	.	.	.	.	.	.
ALPHA	0.02388401	0.04636505	0.12565657	0.09393612	0.02443224	0.01348482	0.02009779	0.00894202
BETA	1.46674700	1.34963502	1.17105496	1.24683001	1.71372697	1.67779903	1.64336205	1.91950798
RMS	0.014	0.015	0.012	0.013	0.009	0.006	0.010	0.008
P(E>.01)	0.357	0.643	0.500	0.429	0.143	0.143	0.286	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.00246651	0.08495871	0.14910520	0.04124140	0.00192882	0.00094013	0.00190181	0.00013494
BETA	2.72464791	1.05236006	0.79484278	1.43282902	2.77364695	3.00345802	2.41605105	4.07343514
RMS	0.007	0.019	0.017	0.009	0.004	0.004	0.004	0.002
P(E>.01)	0.143	0.500	0.357	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.008584454	0.10230600	0.11327860	0.01118698	0.00023462	0.00044151	0.00153600	0.00001137
BETA	1.45102799	0.76513770	0.88841343	1.83033090	3.54113293	2.58118105	2.07437205	4.99346717
RMS	0.008	0.014	0.013	0.003	0.004	0.001	0.003	0.002
P(E>.01)	0.214	0.357	0.429	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.002397742	0.11381480	0.08808994	0.00267150	0.00000682	0.00007855	0.00018940	0.00011572
BETA	2.74516010	0.90711367	1.03580594	2.49660301	5.33293486	3.60840011	3.32469296	4.02966976
RMS	0.018	0.021	0.016	0.004	0.001	0.001	0.002	0.001
P(E>.01)	0.857	0.643	0.643	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.01879590	0.12141480	0.10028020	0.00469279	0.00046310	0.00030975	0.00070722	0.00560599
BETA	1.03770004	0.94822669	1.02495597	2.33404994	3.02037406	3.08290911	2.57174802	1.35728705
RMS	0.014	0.021	0.013	0.003	0.004	0.001	0.001	0.004
P(E>.01)	0.643	0.857	0.429	0.000	0.000	0.000	0.000	0.071
AUG	.	.	.	.	.	.	.	.
ALPHA	0.02133416	0.18238850	0.20951220	0.02966752	0.00033278	0.00038490	0.00029444	0.00114260
BETA	1.27063000	0.72527063	0.71368039	1.46432400	3.29497600	2.92513990	1.32957101	2.52471590
RMS	0.013	0.022	0.020	0.007	0.002	0.002	0.004	0.008
P(E>.01)	0.500	0.714	0.643	0.286	0.000	0.000	0.000	0.214
SEP	.	.	.	.	.	.	.	.
ALPHA	0.12028390	0.40737510	0.49083790	0.16884799	0.00831379	0.00282224	0.00547112	0.01243697
BETA	0.64461398	0.36543030	0.38437101	0.83280699	7.00031795	2.28716397	7.02731493	1.54709804
RMS	0.023	0.026	0.027	0.015	0.003	0.001	0.008	0.019
P(E>.01)	0.714	0.571	0.714	0.643	0.000	0.000	0.286	0.357
OCT	.	.	.	.	.	.	.	.
ALPHA	0.14984220	0.39138299	0.45561221	0.26709089	0.03403004	0.01730219	0.02809287	0.05576678
BETA	0.35668891	0.40263879	0.38587061	0.63840229	1.35597496	1.89634201	1.57130396	0.80427167
RMS	0.033	0.032	0.032	0.025	0.009	0.009	0.008	0.023
P(E>.01)	0.857	0.857	0.857	0.857	0.143	0.143	0.286	0.786
NOV	.	.	.	.	.	.	.	.
ALPHA	0.146644000	0.18474620	0.19108231	0.14913760	0.07901924	0.08297322	0.09845744	0.13610791
BETA	1.00291398	0.94526998	0.87973231	0.91048312	1.22408700	1.14066601	1.16406798	1.09363605
RMS	0.048	0.027	0.025	0.016	0.011	0.014	0.019	0.034
P(E>.01)	0.857	0.786	0.857	0.786	0.500	0.500	0.571	0.857
DEC	.	.	.	.	.	.	.	.
ALPHA	0.02081144	0.08554734	0.14711830	0.18878780	0.13263180	0.12006610	0.11777100	0.02459574
BETA	2.10419798	1.43426001	1.15918398	1.02190399	1.15325499	1.21142900	1.24190295	1.90994501
RMS	0.020	0.014	0.012	0.023	0.016	0.016	0.020	0.015
P(E>.01)	0.300	0.571	0.286	0.929	0.643	0.643	0.571	0.357

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY
FURTH AAF WBAR034176

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.09073154	0.10193940	0.23540419	0.25639359	0.18019029	0.13652191	0.10472700	0.10861580
BETA	1.38809097	1.37126398	1.21989000	1.32925403	1.308664599	1.30971396	1.16709900	1.22884798
RMS	0.031	0.029	0.041	0.048	0.030	0.034	0.033	0.031
P(E>.01)	0.929	0.786	0.786	0.857	0.857	0.857	0.786	0.714
FEB								
ALPHA	0.13744560	0.10063890	0.12688340	0.11141320	0.05566289	0.06714740	0.16152491	0.21458840
BETA	1.43490698	1.86907804	1.79342500	1.71904600	1.86801302	1.61371100	1.39029300	1.35644305
RMS	0.038	0.044	0.028	0.037	0.027	0.020	0.038	0.046
P(E>.01)	0.857	0.714	0.786	0.714	0.571	0.357	0.857	1.000
MAR								
ALPHA	0.01829305	0.02178754	0.13124280	0.09846777	0.03874927	0.02533063	0.02792739	0.02259124
BETA	1.90364504	1.86997294	1.23028600	1.50192702	1.65452098	1.61590497	1.68997395	1.68799496
RMS	0.032	0.036	0.016	0.020	0.021	0.017	0.011	0.011
P(E>.01)	0.786	0.786	0.714	0.643	0.714	0.643	0.143	0.357
APR								
ALPHA	0.02439760	0.00544667	0.02827795	0.01487364	0.00411572	0.00050348	0.00281241	0.01671238
BETA	0.42742711	2.00013208	1.89404199	1.98978198	2.21507001	3.15082002	2.02383304	0.42402339
RMS	0.006	0.020	0.009	0.015	0.010	0.007	0.004	0.004
P(E>.01)	0.143	0.857	0.214	0.500	0.214	0.143	0.000	0.000
MAY								
ALPHA	0.00029358	0.01091444	0.01458969	0.00113152	0.00020133	0.00000727	0.00025417	0.00073412
BETA	3.51661897	1.73835599	2.10311604	3.12954807	3.43534398	2.07278109	3.06756496	2.57384109
RMS	0.006	0.009	0.018	0.004	0.003	0.001	0.001	0.004
P(E>.01)	0.143	0.214	0.786	0.143	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.00449888	0.01671210	0.01787128	0.00107716	0.00064989	0.00184465	0.0018976	0.00580950
BETA	1.45204298	1.57160294	2.06430101	3.15908098	3.09950900	2.59029388	2.60112691	1.53578901
RMS	0.006	0.015	0.013	0.008	0.006	0.005	0.004	0.008
P(E>.01)	0.143	0.714	0.206	0.143	0.071	0.071	0.000	0.143
JUL								
ALPHA	0.00147147	0.01525199	0.00339233	0.00004234	0.00000170	0.00002342	0.00002274	0.00047410
BETA	2.48359303	1.95547295	3.10667992	4.76613283	5.99062920	4.42077713	4.50028992	2.94334505
RMS	0.005	0.024	0.014	0.003	0.001	0.001	0.003	0.005
P(E>.01)	0.000	0.714	0.643	0.000	0.000	0.000	0.000	0.143
AUG								
ALPHA	0.00057849	0.02341169	0.024663544	0.00259118	0.00013264	0.00005152	0.00000174	0.00082434
BETA	3.17203307	1.58759405	2.01920700	2.94501994	4.01701307	4.20203495	5.89400482	2.72582507
RMS	0.007	0.028	0.032	0.004	0.005	0.005	0.002	0.017
P(E>.01)	0.143	0.857	0.857	0.000	0.071	0.143	0.000	0.286
SEP								
ALPHA	0.01300355	0.10261070	0.21950540	0.07468068	0.01042844	0.00240994	0.00022936	0.00102939
BETA	2.18665791	1.25240600	0.86024222	1.27528604	1.91938400	2.50489402	3.74134588	3.32088889
RMS	0.012	0.054	0.035	0.011	0.012	0.008	0.007	0.008
P(E>.01)	0.500	0.857	0.786	0.500	0.286	0.214	0.143	0.214
OCT								
ALPHA	0.02793599	0.04313027	0.24839480	0.14634110	0.02445915	0.00454616	0.00916126	0.02497453
BETA	1.90013794	1.98738098	1.14434205	1.36356199	1.95443797	2.68727493	2.49524501	1.98059497
RMS	0.017	0.025	0.020	0.024	0.014	0.008	0.017	0.017
P(E>.01)	0.357	0.429	0.786	0.714	0.214	0.286	0.500	0.571
NOV								
ALPHA	0.09721489	0.07277950	0.10132090	0.09424704	0.02329016	0.02815444	0.08070492	0.09750966
BETA	1.44453404	1.62102199	1.55617595	1.50890803	2.07473092	1.88384803	1.38963306	1.38458876
RMS	0.024	0.017	0.012	0.018	0.014	0.011	0.024	0.020
P(E>.01)	0.371	0.500	0.286	0.429	0.357	0.143	0.714	0.643
DEC								
ALPHA	0.23545329	0.17500409	0.20145170	0.26401180	0.08578639	0.11031670	0.21646111	0.23274600
BETA	1.12236702	1.35503399	1.55780697	1.41107407	1.76031005	1.73344102	1.22442400	1.20310795
RMS	0.032	0.034	0.025	0.033	0.023	0.030	0.033	0.038
P(E>.01)	0.786	0.857	0.714	0.857	0.571	0.786	0.714	0.500

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

GABELINGEN AAF WBAN#34194

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.18052959	0.2039760	0.21032040	0.12322230	0.12478750	0.14834590	0.16888888	
BETA	1.04948904	1.10405695	1.16391504	1.34077406	1.24000595	1.12776899	0.98888888	
RMS	0.029	0.028	0.033	0.027	0.026	0.024	0.025	0.025
P(E>.01)	0.786	0.929	0.714	0.714	0.714	0.571	0.571	0.571
FEB								
ALPHA	0.07423971	0.10494970	0.09150819	0.03718607	0.02069761	0.04571636	0.08888888	
BETA	1.35401797	1.27913797	1.40363896	1.61135304	1.80578601	1.49361002	1.49361002	
RMS	0.014	0.017	0.019	0.017	0.007	0.021	0.021	0.021
P(E>.01)	0.500	0.643	0.643	0.643	0.214	0.643	0.643	0.643
MAR								
ALPHA	0.10725290	0.14279550	0.10437800	0.04619059	0.03700471	0.03729077	0.03729077	
BETA	1.05296799	1.00590801	1.22991002	1.37485896	1.38486675	1.46507898	0.98888888	
RMS	0.021	0.028	0.029	0.018	0.013	0.014	0.014	0.014
P(E>.01)	0.500	0.714	0.786	0.643	0.500	0.500	0.500	0.500
APR								
ALPHA	0.02917441	0.04594852	0.01914224	0.00899479	0.00328947	0.00360287	0.08888888	
BETA	1.66892099	1.52183294	1.74542497	1.81141976	2.15777993	2.17708111	0.98888888	
RMS	0.016	0.014	0.011	0.006	0.004	0.004	0.004	0.004
P(E>.01)	0.500	0.643	0.429	0.071	0.071	0.000	0.000	0.000
MAY								
ALPHA	0.02717843	0.01795203	0.00265133	0.00037159	0.00038982	0.00034040	0.08888888	
BETA	1.46844598	1.84095903	2.31639407	2.96105953	2.73319392	3.14554904	0.98888888	
RMS	0.019	0.017	0.007	0.001	0.001	0.002	0.002	0.002
P(E>.01)	0.786	0.714	0.214	0.000	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.03995955	0.01265488	0.00172067	0.00052603	0.00074133	0.00166804	0.08888888	
BETA	1.46009598	2.13451290	2.75513601	3.07977009	2.67581999	2.47535801	0.98888888	
RMS	0.025	0.012	0.004	0.003	0.001	0.001	0.001	0.001
P(E>.01)	0.714	0.357	0.071	0.000	0.000	0.000	0.000	0.000
JUL								
ALPHA	0.00439025	0.03489905	0.01993215	0.00126991	0.00041296	0.00040390	0.00027512	0.00342372
BETA	2.52759675	1.61345601	1.86229002	2.89334607	3.01084377	2.45822911	3.28623796	2.70264990
RMS	0.035	0.019	0.013	0.002	0.001	0.001	0.004	0.010
P(E>.01)	0.500	0.786	0.786	0.000	0.000	0.000	0.000	0.357
AUG								
ALPHA	0.03712245	0.09991385	0.07212564	0.01400018	0.000974176	0.00046686	0.00234809	0.01363028
BETA	1.43101799	1.09809995	1.28030094	1.81874297	2.89044607	3.06158996	2.34511397	1.79887199
RMS	0.016	0.019	0.021	0.009	0.002	0.002	0.003	0.011
P(E>.01)	0.643	0.500	0.571	0.429	0.000	0.000	0.000	0.500
SEP								
ALPHA	0.00231883	0.22207910	0.31168211	0.12859941	0.01418261	0.00450245	0.00396238	0.08888888
BETA	2.15969300	0.70306879	0.52989882	0.87626010	1.74806395	2.12916088	2.20549202	0.98888888
RMS	0.035	0.021	0.016	0.011	0.009	0.006	0.009	0.009
P(E>.01)	0.629	0.643	0.500	0.357	0.357	0.143	0.286	0.286
OCT								
ALPHA	0.27144659	0.36431491	0.18373640	0.04184287	0.02554024	0.07310047	0.08888888	
BETA	0.75228739	0.67753532	0.94030551	1.46459901	1.44457297	1.11424904	0.98888888	
RMS	0.026	0.024	0.020	0.010	0.009	0.012	0.012	0.012
P(E>.01)	0.571	0.643	0.643	0.357	0.214	0.429	0.429	0.429
NOV								
ALPHA	0.19133750	0.20073821	0.17923079	0.11048360	0.12368190	0.13744279	0.08888888	
BETA	0.99663529	0.95160621	1.03498101	1.11572897	1.04134500	1.14735174	0.98888888	
RMS	0.027	0.020	0.030	0.016	0.012	0.022	0.022	0.022
P(E>.01)	0.786	0.714	0.857	0.571	0.286	0.857	0.857	0.857
DEC								
ALPHA	0.12225310	0.16134150	0.18349400	0.11549520	0.11448100	0.11088430	0.08888888	
BETA	1.07520474	1.08060598	1.08832398	1.26077404	1.20839095	1.23817503	0.98888888	
RMS	0.024	0.022	0.030	0.036	0.025	0.025	0.025	0.025
P(E>.01)	0.714	0.643	0.786	0.929	0.714	0.786	0.786	0.786

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

GIEBELSTADT AUX AF WBAM#34036

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.09632467	0.06887664	0.12140040	0.15662920	0.11748210	0.09191467	0.06971180	0.12028590
BETA	1.16134201	1.36522603	1.12296796	1.04798399	1.12068498	1.18936598	1.32517600	1.07202494
RMS	0.025	0.026	0.021	0.014	0.014	0.011	0.017	0.046
P(E>.01)	0.571	0.500	0.714	0.429	0.500	0.286	0.571	0.929
FEB								
ALPHA	0.000000000	0.02559163	0.20457870	0.21126050	0.13238239	0.11979030	0.01970686	0.000000000
BETA	0.000000000	1.47286403	0.71216983	0.77498350	0.95316172	0.99500239	1.39723802	0.000000000
RMS	0.00000	0.031	0.015	0.026	0.032	0.029	0.016	0.000
P(E>.01)	0.888	0.857	0.500	0.857	0.786	0.714	0.714	0.888
MAR								
ALPHA	0.03170711	0.02260725	0.09048896	0.08042542	0.03497998	0.01533733	0.00472148	0.00997789
BETA	1.39744499	1.64843798	1.28605103	1.27898894	1.40104997	1.68087804	2.12526894	2.04085992
RMS	0.025	0.017	0.016	0.019	0.012	0.010	0.009	0.017
P(E>.01)	0.714	0.643	0.500	0.571	0.429	0.214	0.143	0.429
APR								
ALPHA	0.000000000	0.04732210	0.04894010	0.00976743	0.00374235	0.00219423	0.00076152	0.000000000
BETA	0.000000000	1.25588594	1.20295093	1.95345902	2.10926009	1.89014995	1.79716301	0.000000000
RMS	0.00000	0.036	0.011	0.010	0.003	0.002	0.003	0.000
P(E>.01)	0.888	0.714	0.429	0.357	0.000	0.000	0.000	0.888
MAY								
ALPHA	0.000000000	0.00515916	0.02411774	0.00877485	0.00042521	0.00028476	0.00000194	0.000004306
BETA	0.000000000	2.41689610	1.58739400	1.75943303	2.77603102	2.99741411	5.93465409	4.27406502
RMS	0.00000	0.008	0.014	0.010	0.003	0.001	0.001	0.006
P(E>.01)	0.888	0.286	0.500	0.286	0.000	0.000	0.000	0.143
JUN								
ALPHA	0.00011877	0.03234151	0.01494391	0.00255010	0.00172815	0.00068951	0.00001149	0.00003708
BETA	4.29019690	1.34512804	1.72192502	2.12979811	1.72564402	2.02883401	4.58119096	4.45227786
RMS	0.009	0.015	0.012	0.002	0.003	0.001	0.001	0.002
P(E>.01)	0.429	0.643	0.571	0.000	0.000	0.000	0.000	0.000
JUL								
ALPHA	0.00009444	0.00282724	0.01432045	0.00463140	0.00302058	0.00297033	0.00014298	0.00000041
BETA	4.72068470	3.01547947	1.84559500	2.13031402	1.69844198	1.66441497	3.0995302	7.24639797
RMS	0.007	0.010	0.010	0.003	0.003	0.003	0.001	0.004
P(E>.01)	0.143	0.286	0.357	0.000	0.000	0.000	0.000	0.000
AUG								
ALPHA	0.00009194	0.00253018	0.02090548	0.00484714	0.00028829	0.00002503	0.00000395	0.00011597
BETA	4.63429117	3.11874890	1.52189600	2.04589405	2.97080998	4.09886312	5.31848383	4.14322708
RMS	0.009	0.017	0.007	0.003	0.001	0.001	0.001	0.010
P(E>.01)	0.357	0.286	0.071	0.000	0.000	0.000	0.000	0.429
SEP								
ALPHA	0.00678494	0.04247450	0.09951668	0.02183652	0.00675322	0.00686922	0.00639244	0.00405416
BETA	2.32009401	1.39537799	0.99439612	1.42891495	1.84201205	1.60342101	1.46232800	2.39029503
RMS	0.014	0.034	0.012	0.011	0.005	0.005	0.007	0.013
P(E>.01)	0.286	0.857	0.429	0.286	0.071	0.000	0.286	0.357
OCT								
ALPHA	0.04691765	0.10444540	0.27436030	0.17481090	0.04907887	0.01954465	0.01840429	0.04520150
BETA	1.803511603	1.43022001	0.82224399	0.88969678	1.24371195	1.40250199	1.85196304	1.53867996
RMS	0.043	0.043	0.034	0.024	0.009	0.009	0.010	0.022
P(E>.01)	0.857	0.929	0.857	0.571	0.286	0.214	0.286	0.571
NOV								
ALPHA	0.07314257	0.10457330	0.17070819	0.16447280	0.06799593	0.05068632	0.04410970	0.05787769
BETA	1.54546104	1.44223595	1.14584398	1.03342295	1.36361694	1.47198200	1.521217995	1.54337895
RMS	0.025	0.034	0.016	0.019	0.016	0.015	0.023	0.020
P(E>.01)	0.786	0.786	0.429	0.643	0.500	0.357	0.500	0.500
DEC								
ALPHA	0.13038471	0.14939541	0.11293300	0.14013590	0.10850030	0.10708540	0.14265101	0.13659190
BETA	1.39616799	1.36233405	1.33750200	1.13234198	1.17534604	1.14866902	1.10645401	1.25440799
RMS	0.034	0.034	0.020	0.018	0.014	0.011	0.023	0.033
P(E>.01)	0.714	0.786	0.643	0.500	0.429	0.357	0.643	0.643

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

GRAFENWOHR AAF USAH934189

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.15766621	0.14815880	0.17772929	0.21043129	0.12040240	0.10703000	0.15272950	0.17467029
BETA	1.35289998	1.59315896	1.44458401	1.28041303	1.40460098	1.43819394	1.40920496	1.42784202
RMS	0.038	0.035	0.025	0.022	0.019	0.018	0.034	0.035
P(E>.01)	0.857	0.643	0.643	0.786	0.571	0.643	0.786	0.714
FEB								
ALPHA	0.12450280	0.12509230	0.22639389	0.20869960	0.09229484	0.06149203	0.08235410	0.10068710
BETA	1.38551293	1.43401802	1.09824674	1.08798397	1.34624600	1.49977505	1.38579495	1.50041497
RMS	0.030	0.029	0.019	0.014	0.017	0.009	0.027	0.031
P(E>.01)	0.714	0.714	0.643	0.571	0.643	0.214	0.571	0.714
MAR								
ALPHA	0.07879391	0.11034780	0.19860250	0.09318054	0.01893740	0.01649480	0.03028367	0.04722523
BETA	1.47944974	1.36877501	1.16323902	1.40939603	1.99139500	1.93481674	1.84058297	1.70132005
RMS	0.018	0.017	0.018	0.015	0.013	0.016	0.021	0.020
P(E>.01)	0.714	0.643	0.643	0.571	0.357	0.429	0.357	0.784
APR								
ALPHA	0.03999242	0.11890680	0.13564780	0.01385541	0.00158141	0.00107434	0.00375485	0.01061579
BETA	1.36314695	1.13613498	1.14155495	2.07387400	2.88038301	2.77929692	2.47811508	2.12398911
RMS	0.019	0.021	0.017	0.013	0.004	0.002	0.009	0.015
P(E>.01)	0.714	0.714	0.571	0.357	0.000	0.000	0.143	0.357
MAY								
ALPHA	0.04037315	0.140080410	0.10798240	0.00440319	0.00029564	0.00005135	0.00032645	0.00369034
BETA	1.34112096	0.69457428	1.06987405	2.41820097	3.54832506	4.42443723	3.53888702	2.56010509
RMS	0.023	0.029	0.021	0.008	0.004	0.001	0.004	0.013
P(E>.01)	0.786	0.786	0.643	0.214	0.000	0.000	0.000	0.357
JUN								
ALPHA	0.01201999	0.11329650	0.05573386	0.00074653	0.00025468	0.00043648	0.0005043	0.00415338
BETA	2.05431208	1.01506303	1.38034294	3.25048590	3.49125504	3.11038709	3.17927674	2.37464309
RMS	0.021	0.029	0.029	0.004	0.003	0.001	0.002	0.008
P(E>.01)	0.714	0.786	0.786	0.071	0.000	0.000	0.000	0.214
JUL								
ALPHA	0.01301556	0.10221560	0.06034035	0.00040429	0.00024252	0.00025138	0.00016259	0.00059273
BETA	1.98921704	1.19656301	1.31904705	3.78474998	3.22220404	3.29237008	3.45462089	3.48046398
RMS	0.021	0.023	0.017	0.005	0.004	0.002	0.004	0.010
P(E>.01)	0.714	0.714	0.643	0.143	0.000	0.000	0.000	0.286
AUG								
ALPHA	0.02443747	0.13031870	0.14246320	0.00831955	0.00028692	0.00157205	0.00155180	0.00631633
BETA	1.73818195	1.05852795	1.00537299	2.28414304	3.66333109	2.43950295	2.48365502	2.21936488
RMS	0.018	0.031	0.025	0.007	0.002	0.004	0.008	0.008
P(E>.01)	0.714	0.857	0.643	0.143	0.000	0.000	0.143	0.214
SEP								
ALPHA	0.14658961	0.32495999	0.38590360	0.06030437	0.00660229	0.00614859	0.00577502	0.01624108
BETA	0.90710172	0.67986109	0.67883458	1.39766300	2.12685499	1.92173803	2.26559711	1.97564805
RMS	0.038	0.034	0.021	0.021	0.008	0.005	0.013	0.027
P(E>.01)	0.857	0.929	0.571	0.714	0.143	0.000	0.286	0.857
OCT								
ALPHA	0.24068010	0.33176851	0.39584321	0.15468070	0.01252346	0.00522780	0.02062636	0.09907844
BETA	0.862311428	0.771491758	0.72777849	1.08852398	2.12607193	2.51483593	2.07514501	1.28484702
RMS	0.046	0.043	0.036	0.031	0.011	0.009	0.016	0.038
P(E>.01)	0.929	0.929	0.637	0.857	0.357	0.357	0.700	1.000
NOV								
ALPHA	0.14185300	0.14135430	0.18894280	0.15504581	0.04546910	0.06965378	0.08984469	0.10817080
BETA	1.18808997	1.16634703	1.12532902	1.13533404	1.27824097	1.35779405	1.36042404	1.30260197
RMS	0.021	0.024	0.020	0.010	0.014	0.011	0.019	0.017
P(E>.01)	0.786	1.000	0.643	0.429	0.214	0.357	0.429	0.714
DEC								
ALPHA	0.12515450	0.127466710	0.14239110	0.16180331	0.10242520	0.10307030	0.12751999	0.12493420
BETA	1.47356698	1.46753695	1.42184804	1.32673702	1.47149602	1.45334005	1.43871401	1.49213600
RMS	0.027	0.032	0.022	0.014	0.013	0.018	0.032	0.030
P(E>.01)	0.929	0.929	0.786	0.429	0.500	0.371	0.786	0.643

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

HANN AB UBAN834055

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.30021411	0.33129191	0.39000040	0.38365301	0.28112280	0.25318131	0.23557441	0.24395929
BETA	0.67754960	0.45949088	0.58484739	0.60642147	0.64458913	0.70213377	0.734464310	0.68893319
RMS	0.022	0.026	0.016	0.013	0.011	0.012	0.015	0.015
P(E > .01)	0.786	0.643	0.643	0.500	0.429	0.286	0.643	0.714
FEB								
ALPHA	0.18858470	0.22417620	0.29225469	0.23552090	0.14682900	0.14201580	0.14015460	0.14903520
BETA	0.84006349	0.85242027	0.75120080	0.79399421	0.851644672	0.84958498	0.91777537	0.92225468
RMS	0.015	0.015	0.017	0.016	0.014	0.012	0.013	0.017
P(E > .01)	0.643	0.429	0.500	0.429	0.357	0.429	0.714	0.571
MAR								
ALPHA	0.06239713	0.11982360	0.14821990	0.09059478	0.04607453	0.03856244	0.03649041	0.05396308
BETA	1.04430101	0.93381327	0.68112947	1.01006603	1.07250202	1.15771604	1.39378703	1.14639102
RMS	0.009	0.011	0.013	0.010	0.007	0.009	0.009	0.008
P(E > .01)	0.286	0.286	0.429	0.286	0.143	0.214	0.357	0.286
APR								
ALPHA	0.02391821	0.06790720	0.09439299	0.03766957	0.01979181	0.01470037	0.02285004	0.02224653
BETA	1.38998499	1.02611494	0.89144761	1.04059601	1.15364897	1.23424101	1.17081904	1.22619104
RMS	0.010	0.010	0.008	0.006	0.004	0.004	0.004	0.008
P(E > .01)	0.286	0.429	0.286	0.071	0.000	0.071	0.071	0.071
MAY								
ALPHA	0.03309229	0.08959133	0.06307749	0.02215360	0.00881734	0.004046855	0.01126272	0.01513343
BETA	1.172585099	0.85158741	0.94896881	1.12492394	1.28937805	1.74888098	1.43077505	1.42293096
RMS	0.006	0.008	0.009	0.004	0.002	0.002	0.003	0.005
P(E > .01)	0.071	0.143	0.357	0.000	0.000	0.000	0.000	0.071
JUN								
ALPHA	0.03487931	0.09527515	0.04339233	0.01582207	0.00546867	0.009446571	0.02183105	0.03013519
BETA	1.17421401	0.80588108	0.9829610	1.46247407	1.78158104	1.44275498	1.15214398	1.07403002
RMS	0.008	0.007	0.006	0.004	0.004	0.004	0.007	0.005
P(E > .01)	0.286	0.143	0.071	0.143	0.000	0.000	0.143	0.071
JUL								
ALPHA	0.02258287	0.05845229	0.04769145	0.01101757	0.00374289	0.00400454	0.00723462	0.01066913
BETA	1.37539804	1.08341098	1.14822495	1.54854298	1.61667097	1.54289198	1.52794698	1.58680701
RMS	0.005	0.007	0.006	0.004	0.003	0.002	0.002	0.004
P(E > .01)	0.071	0.143	0.143	0.000	0.000	0.000	0.000	0.000
AUG								
ALPHA	0.04398146	0.111196120	0.09832285	0.01751099	0.00868299	0.007494640	0.01488515	0.02473432
BETA	1.12263896	0.83209240	0.96965712	1.58228600	1.49771207	1.55017996	1.37262797	1.28050005
RMS	0.008	0.008	0.009	0.006	0.004	0.003	0.003	0.005
P(E > .01)	0.143	0.357	0.214	0.071	0.000	0.000	0.000	0.071
SEP								
ALPHA	0.06379866	0.13380811	0.15027620	0.03735452	0.01571097	0.01280921	0.02590996	0.03317911
BETA	1.04521000	0.79900092	0.75084668	1.19952595	1.16344595	1.33398294	1.27039802	1.24731696
RMS	0.008	0.008	0.009	0.007	0.004	0.003	0.004	0.009
P(E > .01)	0.214	0.286	0.143	0.143	0.000	0.000	0.000	0.286
OCT								
ALPHA	0.24109250	0.29341799	0.37224731	0.17980820	0.08108213	0.09144220	0.11583220	0.17213769
BETA	0.42132210	0.42203228	0.49583250	0.71918207	0.91339439	0.87016529	0.88173890	0.68245578
RMS	0.010	0.012	0.011	0.012	0.011	0.012	0.017	0.012
P(E > .01)	0.357	0.429	0.571	0.500	0.357	0.571	0.643	0.443
NOV								
ALPHA	0.15199120	0.20133279	0.23243991	0.18142310	0.11907680	0.11095289	0.13466901	0.15091489
BETA	0.75269139	0.66543168	0.61700219	0.67299098	0.75126040	0.70903808	0.72686118	0.64584589
RMS	0.015	0.014	0.014	0.013	0.007	0.010	0.011	0.010
P(E > .01)	0.371	0.643	0.786	0.643	0.143	0.214	0.357	0.429
DEC								
ALPHA	0.32207161	0.34025019	0.34750041	0.33518860	0.27925971	0.29097271	0.28210241	0.31082171
BETA	0.61478019	0.54000042	0.54395650	0.62271559	0.61808080	0.45398508	0.43926142	0.40225981
RMS	0.016	0.015	0.016	0.012	0.010	0.019	0.019	0.016
P(E > .01)	0.714	0.714	0.786	0.357	0.357	0.857	0.786	0.643

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

HANAU AAF WBAN#T1009

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.08843911	0.10838380	0.12099760	0.17423850	0.12092340	0.11143830	0.12183240	0.09401572
BETA	1.51466799	1.39961100	1.31920693	1.14277194	1.24043801	1.24096094	1.31993902	1.48193204
RMS	0.022	0.019	0.020	0.025	0.020	0.016	0.018	0.018
P(E>.01)	0.571	0.500	0.786	0.857	0.714	0.500	0.429	0.443
FEB								
ALPHA	0.06219866	0.07952958	0.13635939	0.15973219	0.09103326	0.07193977	0.05674442	0.04295958
BETA	1.39825294	1.35638104	1.13812101	1.04781900	1.21441195	1.21242802	1.38450098	1.51460397
RMS	0.015	0.016	0.016	0.013	0.010	0.013	0.014	0.013
P(E>.01)	0.357	0.429	0.571	0.429	0.214	0.571	0.571	0.429
MAR								
ALPHA	0.01056111	0.02889897	0.07162429	0.05037229	0.01310903	0.06782521	0.00903584	0.00643980
BETA	2.23088288	1.81787503	1.50682294	1.64056003	2.08299804	2.15597200	2.14831901	2.39063406
RMS	0.008	0.009	0.013	0.009	0.007	0.010	0.007	0.005
P(E>.01)	0.214	0.143	0.429	0.143	0.143	0.143	0.143	0.143
APR								
ALPHA	0.01340008	0.04053357	0.04407805	0.02367170	0.00272485	0.00054522	0.00144392	0.00589171
BETA	1.94865406	1.46308495	1.43324402	1.81684902	2.62841511	3.23274102	2.77342200	2.23925900
RMS	0.007	0.011	0.011	0.008	0.004	0.002	0.002	0.006
P(E>.01)	0.214	0.286	0.357	0.214	0.000	0.000	0.000	0.143
MAY								
ALPHA	0.01123303	0.04103201	0.03800247	0.00408880	0.00084187	0.00035373	0.0221327	0.00408135
BETA	1.90400004	1.44798897	1.56868398	2.46019504	2.83443964	3.09479094	2.18437505	2.32405710
RMS	0.007	0.009	0.008	0.003	0.002	0.002	0.003	0.004
P(E>.01)	0.143	0.429	0.214	0.000	0.000	0.000	0.000	0.071
JUN								
ALPHA	0.01535515	0.04138602	0.02978674	0.00482932	0.00132839	0.00124540	0.00127144	0.00782869
BETA	1.78178875	1.50911999	1.68202198	2.37274909	2.69946790	2.42011497	2.53434300	2.01881099
RMS	0.009	0.010	0.008	0.005	0.005	0.002	0.002	0.003
P(E>.01)	0.429	0.429	0.214	0.000	0.071	0.000	0.000	0.000
JUL								
ALPHA	0.01526440	0.04493483	0.03673004	0.00439951	0.00030574	0.00030451	0.00047316	0.00708269
BETA	1.84016795	1.50939095	1.66275406	2.53972707	3.51945996	3.07918811	3.03746394	2.29358101
RMS	0.007	0.008	0.011	0.003	0.001	0.002	0.002	0.006
P(E>.01)	0.143	0.143	0.429	0.000	0.000	0.000	0.000	0.143
AUG								
ALPHA	0.01805586	0.05607752	0.04959343	0.01040784	0.00111987	0.00032016	0.00249641	0.004464245
BETA	1.62012506	1.38817799	1.37483995	2.11494002	2.84407189	3.282346794	2.16885976	2.23923302
RMS	0.015	0.014	0.014	0.007	0.004	0.003	0.004	0.008
P(E>.01)	0.357	0.714	0.571	0.143	0.000	0.000	0.000	0.357
SEP								
ALPHA	0.05044497	0.12604800	0.16725750	0.03205027	0.00724239	0.00255849	0.01017060	0.01679551
BETA	1.42398500	1.14904297	1.05599777	1.30387094	2.15406990	2.48147607	1.89280605	1.73814688
RMS	0.009	0.018	0.018	0.007	0.004	0.002	0.005	0.008
P(E>.01)	0.143	0.786	0.714	0.143	0.143	0.000	0.071	0.143
OCT								
ALPHA	0.13238980	0.21079210	0.29012001	0.17469290	0.04629911	0.03261935	0.08173122	0.09940203
BETA	1.10525403	0.90096381	0.80424798	1.01638004	1.32377498	1.38748102	1.29902306	1.20443702
RMS	0.022	0.023	0.024	0.023	0.013	0.012	0.018	0.022
P(E>.01)	0.786	0.843	0.786	0.786	0.357	0.286	0.786	0.443
NOV								
ALPHA	0.06901438	0.08914342	0.12544499	0.14348350	0.07049851	0.06707084	0.08442714	0.08447437
BETA	1.93461099	1.40954795	1.21462295	1.14395953	1.37360094	1.37261498	1.39001301	1.40205097
RMS	0.014	0.012	0.011	0.012	0.009	0.009	0.013	0.015
P(E>.01)	0.500	0.429	0.357	0.571	0.214	0.286	0.571	0.500
DEC								
ALPHA	0.05337372	0.08952294	0.11257480	0.14755210	0.09712297	0.11024190	0.10207390	0.07671840
BETA	1.69067604	1.41963402	1.34743901	1.16764498	1.37077999	1.29005394	1.37503097	1.33296494
RMS	0.012	0.017	0.018	0.018	0.015	0.014	0.018	0.016
P(E>.01)	0.500	0.571	0.357	0.571	0.429	0.357	0.357	0.357

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

HEIDELBERG AAF WBAH034046

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.09392314	0.09577368	0.13251190	0.17268620	0.12962890	0.12977110	0.10544330	0.10242100
BETA	1.27834499	1.28530800	1.15967502	1.04184594	1.10303603	1.11580704	1.25003195	1.25386798
RMS	0.027	0.026	0.017	0.012	0.013	0.013	0.018	0.022
P(E>.01)	0.857	0.857	0.500	0.429	0.357	0.357	0.643	0.857
FEB								
ALPHA	0.11732100	0.12305040	0.19707340	0.19498460	0.12644580	0.11264640	0.10619780	0.09965873
BETA	1.13185094	1.13467598	0.91249958	0.95094329	1.04477499	1.09672901	1.18954504	1.21403898
RMS	0.022	0.023	0.013	0.013	0.016	0.013	0.113	0.018
P(E>.01)	0.643	0.786	0.357	0.500	0.714	0.714	0.357	0.786
MAR								
ALPHA	0.00784256	0.01431170	0.09553485	0.07441142	0.03248278	0.01498402	0.0081803	0.00527538
BETA	2.45261673	2.05226707	1.28342497	1.39384699	1.57454703	1.79639006	2.28639102	2.61100898
RMS	0.016	0.018	0.010	0.011	0.007	0.008	0.009	0.013
P(E>.01)	0.714	0.786	0.214	0.429	0.143	0.214	0.214	0.429
APR								
ALPHA	0.00278767	0.01399281	0.04413048	0.02269041	0.00650943	0.00184024	0.00129334	0.00121218
BETA	2.80770002	2.05927904	1.37905493	1.77426104	2.10041094	2.66454101	2.95375204	3.13963509
RMS	0.010	0.014	0.008	0.009	0.005	0.003	0.005	0.006
P(E>.01)	0.357	0.371	0.143	0.214	0.143	0.000	0.071	0.214
MAY								
ALPHA	0.00104705	0.00967286	0.01647499	0.00472685	0.00073056	0.00087718	0.00073787	0.00039111
BETA	3.26749301	2.20771909	2.06432700	2.46412301	3.10150599	2.80308509	2.95659399	3.61708498
RMS	0.004	0.007	0.007	0.004	0.002	0.002	0.002	0.002
P(E>.01)	0.000	0.214	0.214	0.000	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.00185667	0.02316438	0.02655663	0.00743245	0.00299563	0.00210263	0.00294430	0.00106198
BETA	2.98090100	1.77982795	1.74622794	2.18890095	2.31891203	2.27310395	2.25191903	3.10883498
RMS	0.005	0.008	0.007	0.003	0.002	0.001	0.002	0.004
P(E>.01)	0.000	0.214	0.214	0.000	0.000	0.000	0.000	0.000
JUL								
ALPHA	0.00177494	0.01631270	0.01815459	0.00323958	0.00080278	0.00049977	0.00107963	0.00093932
BETA	2.96356606	1.92887700	1.99000502	2.43751411	2.90930104	2.93232298	2.67494702	3.11381292
RMS	0.004	0.012	0.005	0.004	0.001	0.002	0.004	0.005
P(E>.01)	0.143	0.643	0.071	0.000	0.000	0.000	0.000	0.000
AUG								
ALPHA	0.00332340	0.01770014	0.03363124	0.00893284	0.00252872	0.00161840	0.00131744	0.00089084
BETA	2.41030307	1.89063299	1.45310800	2.09340405	2.14458098	2.35032296	2.70177889	3.14630301
RMS	0.004	0.010	0.007	0.004	0.003	0.003	0.004	0.004
P(E>.01)	0.000	0.214	0.071	0.071	0.000	0.000	0.000	0.000
SEP								
ALPHA	0.01080184	0.07020424	0.13272730	0.04136925	0.00881938	0.00408741	0.00379231	0.00317911
BETA	2.19300389	1.29563403	1.07097995	1.52247298	1.75958400	2.22227001	2.44237208	2.71986198
RMS	0.013	0.025	0.013	0.007	0.004	0.004	0.006	0.006
P(E>.01)	0.714	0.857	0.357	0.143	0.071	0.071	0.143	0.143
OCT								
ALPHA	0.11021130	0.17201610	0.27648309	0.15362170	0.05861789	0.05213007	0.05256249	0.06547008
BETA	1.10165000	0.94090402	0.77472192	1.01795101	1.29949603	1.30309105	1.34676596	1.31866974
RMS	0.044	0.042	0.020	0.008	0.010	0.010	0.020	0.036
P(E>.01)	0.929	0.857	0.714	0.143	0.357	0.286	0.714	0.929
NOV								
ALPHA	0.10941290	0.11572120	0.18073080	0.14937060	0.10297350	0.10379880	0.08973613	0.09737824
BETA	1.17972505	1.19508696	0.96977371	1.04839001	1.17470002	1.17422795	1.26719201	1.22711205
RMS	0.030	0.034	0.019	0.011	0.011	0.014	0.025	0.027
P(E>.01)	0.929	0.786	0.571	0.286	0.357	0.429	0.857	0.786
DEC								
ALPHA	0.10839500	0.10842270	0.14445519	0.18052910	0.12764090	0.13271090	0.10742930	0.11082910
BETA	1.22955203	1.25262403	1.12178195	1.01046001	1.12543201	1.10105398	1.22963595	1.21566406
RMS	0.030	0.031	0.020	0.014	0.010	0.013	0.018	0.021
P(E>.01)	0.929	0.929	0.714	0.429	0.214	0.286	0.714	0.714

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ILLESHEIM AAF WBAW034170

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0000000000	0000000000	0.12034630	0.12874590	0.07444720	0.08257914	0.19613370	0000000000
BETA	0000000000	0000000000	1.18178594	1.14361600	1.40456200	1.32314205	1.21298897	0000000000
RHO	00000	00000	0.016	0.016	0.016	0.014	0.050	00000
P(E>.01)	00000	00000	0.643	0.643	0.429	0.429	0.786	00000
FEB								
ALPHA	0000000000	0000000000	0.10716370	0.09726952	0.06208168	0.03144784	0.07165737	0000000000
BETA	0000000000	0000000000	1.15543401	1.32943704	1.43433097	1.66271603	1.01502097	0000000000
RHO	00000	00000	0.014	0.020	0.022	0.012	0.032	00000
P(E>.01)	00000	00000	0.571	0.429	0.571	0.357	0.857	00000
MAR								
ALPHA	0000000000	0000000000	0.11822330	0.07095103	0.02524617	0.00770953	0.00078594	0000000000
BETA	0000000000	0000000000	0.99410441	1.24850703	1.54029779	2.07399488	3.62795411	0000000000
RHO	00000	00000	0.014	0.011	0.009	0.006	0.016	00000
P(E>.01)	00000	00000	0.429	0.143	0.143	0.071	0.500	00000
APR								
ALPHA	0000000000	0000000000	0.05986140	0.01372834	0.00319578	0.00299135	0.00100049	0000000000
BETA	0000000000	0000000000	1.30247402	1.81862497	2.15479803	2.10825610	0.00000000	0000000000
RHO	00000	00000	0.010	0.006	0.006	0.004	0.004	00000
P(E>.01)	00000	00000	0.214	0.071	0.000	0.000	0.071	00000
MAY								
ALPHA	0000000000	0000000000	0.04691937	0.00871802	0.00284450	0.00271468	0.00100049	0000000000
BETA	0000000000	0000000000	1.31848601	1.76606100	2.19314504	1.91324198	0.00000000	0000000000
RHO	00000	00000	0.007	0.010	0.005	0.003	0.010	00000
P(E>.01)	00000	00000	0.214	0.286	0.143	0.000	0.071	00000
JUN								
ALPHA	0000000000	0000000000	0.05076785	0.00393729	0.00071549	0.00028577	0.00246820	0000000000
BETA	0000000000	0000000000	1.25676099	2.37438893	2.70463972	1.20379105	2.07841198	0000000000
RHO	00000	00000	0.010	0.008	0.004	0.003	0.020	00000
P(E>.01)	00000	00000	0.286	0.214	0.000	0.000	0.357	00000
JUL								
ALPHA	0000000000	0000000000	0.03629004	0.00373639	0.00030809	0.00007366	0.00181810	0000000000
BETA	0000000000	0000000000	1.44740901	2.37499404	3.21284870	3.84257793	1.81070402	0000000000
RHO	00000	00000	0.010	0.007	0.002	0.003	0.014	00000
P(E>.01)	00000	00000	0.429	0.143	0.000	0.000	0.286	00000
AUG								
ALPHA	0000000000	0000000000	0.05810456	0.01040046	0.00212084	0.00184118	0.00100049	0000000000
BETA	0000000000	0000000000	1.29990399	1.97779202	2.37575889	2.13070891	0.00000000	0000000000
RHO	00000	00000	0.009	0.005	0.004	0.001	0.013	00000
P(E>.01)	00000	00000	0.214	0.071	0.000	0.000	0.071	00000
SEP								
ALPHA	0000000000	0000000000	0.19447140	0.04302471	0.00667439	0.00136943	0.00083437	0000000000
BETA	0000000000	0000000000	0.64419388	1.48288000	2.02830100	2.63388705	2.72445011	0000000000
RHO	00000	00000	0.014	0.011	0.004	0.005	0.003	00000
P(E>.01)	00000	00000	0.357	0.214	0.143	0.071	0.000	00000
OCT								
ALPHA	0000000000	0000000000	0.26981071	0.12446370	0.01648168	0.01086782	0.00481480	0000000000
BETA	0000000000	0000000000	0.69026053	1.08890700	1.94424701	2.01538493	2.68046403	0000000000
RHO	00000	00000	0.018	0.012	0.012	0.007	0.014	00000
P(E>.01)	00000	00000	0.429	0.286	0.357	0.214	0.357	00000
NOV								
ALPHA	0000000000	0000000000	0.08469694	0.08267338	0.03129592	0.04720897	0.04410625	0000000000
BETA	0000000000	0000000000	1.07766798	1.09878194	1.20394100	1.12002802	1.02754602	0000000000
RHO	00000	00000	0.015	0.012	0.013	0.012	0.014	00000
P(E>.01)	00000	00000	0.300	0.429	0.571	0.143	0.500	00000
DEC								
ALPHA	0000000000	0000000000	0.06633398	0.07715379	0.04730792	0.06329729	0.09216283	0000000000
BETA	0000000000	0000000000	1.40391004	1.38630199	1.57052101	1.40750096	1.41176605	0000000000
RHO	00000	00000	0.012	0.018	0.013	0.015	0.034	00000
P(E>.01)	00000	00000	0.357	0.500	0.286	0.286	0.643	00000

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

KITZINGEN AAF MBAN034191

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.06306437	0.04418148	0.08406755	0.14121430	0.08722211	0.07329845	0.06713860	0.06058490
BETA	1.80366194	1.78573203	1.54261694	1.17331195	1.33105399	1.37587595	1.44372098	1.76449203
RMS	0.015	0.015	0.013	0.009	0.012	0.011	0.007	0.011
P(E>.01)	0.500	0.571	0.429	0.286	0.371	0.429	0.143	0.357
FEB								
ALPHA	0.05343216	0.05745387	0.08404974	0.09178561	0.04796442	0.03249632	0.05022974	0.03054244
BETA	1.60627398	1.66528904	1.46732002	1.22100604	1.44315505	1.41398101	1.55519199	1.59900904
RMS	0.014	0.011	0.010	0.013	0.010	0.010	0.010	0.009
P(E>.01)	0.357	0.366	0.286	0.371	0.429	0.357	0.357	0.284
MAR								
ALPHA	0.01204583	0.02402149	0.07313025	0.05450232	0.01763131	0.00794637	0.00909488	0.00836847
BETA	2.22362212	1.93417597	1.29578495	1.32210505	1.62442099	1.89969802	2.12066102	2.30244899
RMS	0.006	0.008	0.010	0.010	0.007	0.003	0.004	0.004
P(E>.01)	0.143	0.284	0.357	0.286	0.214	0.000	0.000	0.000
APR								
ALPHA	0.00242846	0.00918280	0.02987689	0.00962277	0.00068242	0.00013932	0.00074636	0.00066367
BETA	2.806460200	2.23100605	1.58006897	1.94495499	2.84822607	3.48349190	2.89106107	3.27961496
RMS	0.006	0.009	0.009	0.007	0.001	0.001	0.001	0.005
P(E>.01)	0.143	0.143	0.143	0.214	0.000	0.000	0.000	0.071
MAY								
ALPHA	0.00060477	0.00942064	0.01704719	0.00302953	0.00036568	0.00012417	0.00021338	0.00070396
BETA	3.37190509	2.04557408	1.80285299	2.27378407	2.78197598	3.13284302	3.14152789	3.05883694
RMS	0.003	0.004	0.007	0.005	0.001	0.001	0.001	0.002
P(E>.01)	0.000	0.143	0.143	0.071	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.00128277	0.00953321	0.02541750	0.00310799	0.00104488	0.00037213	0.00027152	0.00021242
BETA	2.74079804	2.03472589	1.46957703	2.15882707	2.35712304	2.49327807	2.94777393	3.63302588
RMS	0.003	0.065	0.004	0.002	0.002	0.001	0.002	0.001
P(E>.01)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL								
ALPHA	0.00026228	0.00774122	0.02031904	0.00346357	0.00104755	0.00153736	0.00082762	0.00022167
BETA	3.81841898	2.24279404	1.68133104	2.15293097	2.05132699	1.62660399	2.16057110	3.63498097
RMS	0.001	0.004	0.005	0.005	0.001	0.001	0.001	0.002
P(E>.01)	0.000	0.000	0.000	0.071	0.000	0.000	0.000	0.000
AUG								
ALPHA	0.00109820	0.01222184	0.04782524	0.01264361	0.00213066	0.00069246	0.00030440	0.00049858
BETA	3.096469709	1.99355602	1.27410901	1.67499206	1.29304989	2.26447711	3.09261972	3.33309603
RMS	0.003	0.019	0.010	0.005	0.002	0.001	0.001	0.002
P(E>.01)	0.000	0.714	0.357	0.143	0.000	0.000	0.000	0.000
SEP								
ALPHA	0.00763263	0.07129730	0.21333469	0.06137582	0.00575655	0.00174697	0.00110124	0.00176450
BETA	2.31597090	1.25123096	0.69332159	1.13963997	1.92840997	2.13091707	2.79547095	2.90074801
RMS	0.011	0.025	0.018	0.008	0.005	0.002	0.003	0.004
P(E>.01)	0.443	0.786	0.714	0.143	0.000	0.000	0.000	0.000
OCT								
ALPHA	0.08357190	0.21662059	0.32896939	0.17003740	0.02282375	0.01012950	0.01790271	0.02387668
BETA	1.27160001	0.84767632	0.58634710	0.79542643	1.54028106	1.77112300	1.83085501	1.8398105
RMS	0.027	0.040	0.025	0.014	0.005	0.005	0.008	0.014
P(E>.01)	0.766	0.929	0.857	0.500	0.071	0.000	0.286	0.714
NOV								
ALPHA	0.04824703	0.04340710	0.08941654	0.09021530	0.03892212	0.04299328	0.04903929	0.03288843
BETA	1.58248198	1.49019802	1.27395296	1.15771997	1.47923997	1.39136398	1.53726993	1.51417005
RMS	0.018	0.018	0.019	0.014	0.009	0.010	0.018	0.018
P(E>.01)	0.443	0.500	0.571	0.714	0.286	0.286	0.643	0.786
DEC								
ALPHA	0.04791120	0.04693595	0.07398902	0.10296210	0.04371760	0.05784500	0.05398543	0.04583781
BETA	1.71450202	1.74619298	1.57771206	1.24266899	1.40844095	1.47938204	1.72109699	1.87963104
RMS	0.015	0.016	0.012	0.011	0.006	0.005	0.006	0.012
P(E>.01)	0.571	0.714	0.500	0.357	0.071	0.000	0.143	0.571

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

NUMBER: WBAH034177

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.06107504	0.06040253	0.10493740	0.11234030	0.05997425	0.05953045	0.04558594	0.06075220
BETA	1.65019202	1.55849796	1.52616779	1.48569700	1.54952095	1.67400002	1.68253100	1.79998202
RMS	0.024	0.024	0.032	0.020	0.011	0.013	0.021	0.023
P(E>.01)	0.371	0.371	0.764	0.643	0.284	0.429	0.500	0.643
FEB								
ALPHA	0.09493026	0.10409570	0.13900711	0.11084280	0.04700591	0.05068348	0.06677459	0.07494514
BETA	1.29440403	1.25321305	1.29427299	1.28450596	1.45947003	1.50021601	1.48131704	1.40422306
RMS	0.023	0.024	0.019	0.013	0.013	0.013	0.015	0.019
P(E>.01)	0.643	0.643	0.571	0.500	0.429	0.643	0.500	0.571
MAR								
ALPHA	0.02249541	0.036493246	0.07461855	0.03424960	0.00740601	0.00747065	0.01534953	0.01544821
BETA	1.96319497	1.73328996	1.56591201	1.67012000	2.11897400	2.12200189	2.08561204	2.10157990
RMS	0.011	0.012	0.013	0.007	0.005	0.004	0.007	0.007
P(E>.01)	0.357	0.429	0.284	0.143	0.000	0.000	0.214	0.271
APR								
ALPHA	0.00745808	0.03975077	0.03374846	0.00643974	0.00236621	0.00188605	0.00252679	0.00313347
BETA	2.19836990	1.52533701	1.77658105	2.15266101	2.17368388	2.27610412	2.55916810	2.50323606
RMS	0.005	0.012	0.007	0.003	0.002	0.002	0.002	0.006
P(E>.01)	0.071	0.571	0.214	0.000	0.000	0.000	0.000	0.000
MAY								
ALPHA	0.00787836	0.04246442	0.01984280	0.00127429	0.00022794	0.00041734	0.00193987	0.00245782
BETA	2.06491069	1.45511305	1.93145001	2.64855304	3.14079704	2.83374405	2.38252211	2.43470907
RMS	0.006	0.010	0.007	0.003	0.001	0.001	0.002	0.004
P(E>.01)	0.071	0.429	(.071)	0.000	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.00737475	0.02998840	0.30777719	0.00075359	0.00132499	0.00023849	0.00032781	0.00059359
BETA	2.01933002	1.66288197	2.23437808	2.90650511	2.26001496	3.17762494	3.34034491	3.19747210
RMS	0.007	0.011	0.008	0.002	0.002	0.001	0.002	0.002
P(E>.01)	0.284	0.571	0.000	0.000	0.000	0.000	0.000	0.000
JUL								
ALPHA	0.00676306	0.03968178	0.01091277	0.00147904	0.00014463	0.00028829	0.00065088	0.00128730
BETA	2.13364194	1.53980696	2.18960094	2.62145994	3.38673392	2.95945791	2.83020401	2.75467300
RMS	0.009	0.013	0.009	0.002	0.001	0.001	0.001	0.003
P(E>.01)	0.284	0.643	0.214	0.000	0.000	0.000	0.000	0.000
AUG								
ALPHA	0.02308068	0.06736691	0.03148913	0.00394224	0.00133393	0.00044017	0.00148084	0.00585923
BETA	1.44240798	1.22185302	1.70120597	2.28641279	2.17740898	2.69224405	2.45832454	2.05972104
RMS	0.008	0.017	0.013	0.003	0.001	0.001	0.003	0.004
P(E>.01)	0.284	0.714	0.714	0.000	0.000	0.000	0.000	0.143
SEP								
ALPHA	0.08117522	0.14648471	0.11118570	0.01274662	0.00238458	0.00193230	0.00685493	0.02062684
BETA	1.28275299	0.98445278	1.24227703	2.01133108	2.30674899	2.40425110	2.11942410	1.70055347
RMS	0.019	0.018	0.024	0.005	0.001	0.001	0.004	0.011
P(E>.01)	0.643	0.714	0.714	0.143	0.000	0.000	0.000	0.571
OCT								
ALPHA	0.12499770	0.10986450	0.22599781	0.07263434	0.00781004	0.00023438	0.03040554	0.07647705
BETA	1.14051499	0.97104257	1.05987501	1.36096704	2.17581604	2.29020810	1.83610702	1.36156597
RMS	0.017	0.022	0.015	0.012	0.003	0.006	0.011	0.014
P(E>.01)	0.857	0.857	0.500	0.286	0.000	0.071	0.143	0.500
NOV								
ALPHA	0.07526939	0.06988975	0.12563480	0.06083428	0.02465944	0.03476736	0.05189243	0.07341313
BETA	1.41627097	1.20848099	1.29027700	1.573468100	1.78654802	1.79045403	1.63153890	1.40866399
RMS	0.014	0.014	0.013	0.005	0.006	0.010	0.014	0.012
P(E>.01)	0.300	0.764	0.429	0.071	0.143	0.429	0.357	0.429
DEC								
ALPHA	0.07707237	0.07379809	0.10274130	0.09374945	0.04914952	0.04489476	0.07456388	0.08888888
BETA	1.457801302	1.46233797	1.47437074	1.314081199	1.43104595	1.60629404	1.50706005	0.88888888
RMS	0.015	0.017	0.020	0.011	0.006	0.010	0.016	0.008
P(E>.01)	0.429	0.429	0.571	0.429	0.284	0.357	0.443	0.888

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

RAMSTEIN AB WBAN834050

	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.08717854	0.10360680	0.10227490	0.11154570	0.07106511	0.06096642	0.06640083	0.07742318
BETA	1.12896097	1.07630205	1.12741999	1.17376697	1.14003903	1.31916797	1.28102303	1.10797898
RMS	0.010	0.011	0.017	0.012	0.016	0.015	0.008	0.006
P(E>.01)	0.214	0.214	0.571	0.500	0.500	0.714	0.214	0.143
FEB	.	.	.	.	.	.	.	.
ALPHA	0.06939647	0.08006347	0.10022730	0.10379010	0.04505993	0.02408587	0.02386384	0.04239201
BETA	1.17203605	1.13521099	1.12470400	1.21440899	1.48170899	1.65622199	1.72673702	1.39311302
RMS	0.008	0.008	0.011	0.015	0.016	0.013	0.011	0.009
P(E>.01)	0.143	0.214	0.357	0.500	0.643	0.357	0.214	0.214
MAR	.	.	.	.	.	.	.	.
ALPHA	0.04295544	0.07477332	0.09799051	0.04862445	0.00988177	0.00686892	0.00962114	0.01441015
BETA	1.17656600	0.96412271	1.12627602	1.56014597	2.01334691	1.88870502	1.81159604	1.57950103
RMS	0.009	0.014	0.015	0.010	0.005	0.005	0.003	0.005
P(E>.01)	0.214	0.643	0.500	0.357	0.143	0.071	0.000	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.02141653	0.02551402	0.05145596	0.00875278	0.00206762	0.00072444	0.00200700	0.00555497
BETA	1.18711996	1.41971898	1.27781403	1.74565201	2.13083699	2.62737203	2.14753699	1.73016798
RMS	0.008	0.009	0.012	0.003	0.007	0.003	0.003	0.003
P(E>.01)	0.143	0.214	0.500	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.02404175	0.04373107	0.03607882	0.00295577	0.00043514	0.00032354	0.000081062	0.00343328
BETA	1.03754499	1.10302305	1.35664105	2.2405294	2.57902598	2.78297400	2.51652002	1.91254497
RMS	0.009	0.015	0.010	0.003	0.001	0.001	0.001	0.003
P(E>.01)	0.357	0.714	0.357	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.02893631	0.08823325	0.06348269	0.00329409	0.00044372	0.00022214	0.00089518	0.00357258
BETA	1.17891705	0.96710918	1.21791101	2.15543489	2.94943502	3.06408906	2.38360964	2.13819599
RMS	0.014	0.014	0.009	0.004	0.001	0.001	0.002	0.004
P(E>.01)	0.571	0.500	0.357	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.02364044	0.08157439	0.05500570	0.00356370	0.00105653	0.00067433	0.00077285	0.00296930
BETA	1.18658996	0.89070278	1.22744298	2.25286198	2.3634388	2.30020807	2.39367509	2.17428708
RMS	0.013	0.014	0.010	0.003	0.007	0.001	0.001	0.004
P(E>.01)	0.500	0.500	0.357	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.02765580	0.10493850	0.12270830	0.01627210	0.00500168	0.00072315	0.00092738	0.00204521
BETA	1.40041006	0.95760039	1.04136097	1.75049901	1.82055604	2.74721494	2.73704496	2.59738494
RMS	0.009	0.016	0.011	0.005	0.003	0.003	0.001	0.004
P(E>.01)	0.357	0.500	0.357	0.000	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.14132319	0.22574670	0.24209840	0.04351902	0.00372079	0.00204350	0.00228444	0.02599136
BETA	0.73473940	0.63704473	0.71796357	1.22251797	2.17911291	2.18825491	2.45842400	1.41480376
RMS	0.012	0.014	0.012	0.010	0.002	0.003	0.003	0.006
P(E>.01)	0.500	0.643	0.429	0.357	0.000	0.000	0.000	0.071
OCT	.	.	.	.	.	.	.	.
ALPHA	0.24695159	0.28195941	0.30602130	0.18145470	0.03828661	0.01508635	0.04535299	0.13340700
BETA	0.57875011	0.36757931	0.44278752	0.84973028	1.44319201	1.77466951	1.74675899	0.83149851
RMS	0.017	0.015	0.016	0.014	0.011	0.007	0.009	0.010
P(E>.01)	0.571	0.429	0.429	0.500	0.357	0.143	0.284	0.284
NOV	.	.	.	.	.	.	.	.
ALPHA	0.11054440	0.111982980	0.12850490	0.13046511	0.06172225	0.04609487	0.05502454	0.09412269
BETA	0.91722810	0.92809713	0.94233918	1.02249205	1.28904998	1.30588603	1.26021504	1.02587903
RMS	0.013	0.013	0.012	0.008	0.006	0.006	0.007	0.011
P(E>.01)	0.500	0.571	0.500	0.214	0.071	0.071	0.284	0.429
DEC	.	.	.	.	.	.	.	.
ALPHA	0.00536155	0.09276939	0.08804690	0.10373630	0.08598574	0.07608163	0.06834344	0.07843148
BETA	1.22343802	1.16216397	1.22123599	1.30186296	1.30317399	1.32906795	1.35507093	1.26050103
RMS	0.010	0.009	0.009	0.011	0.010	0.012	0.011	0.008
P(E>.01)	0.214	0.284	0.284	0.357	0.357	0.284	0.357	0.143

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

SCHNAEBELCH HALL AAF WBAN#34074

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.29179910	0.14042810	0.12732551	0.07046965	0.07424438	0.10630690	0.10046240	
BETA	1.13261795	1.20804904	1.20331502	1.39658276	1.28247905	1.34215598	1.45126903	
RMS	0.063	0.034	0.033	0.027	0.019	0.029	0.041	
P(E>.01)	0.929	0.714	0.714	0.500	0.429	0.857	0.929	
FEB								
ALPHA	0.04794300	0.14412821	0.12972289	0.0982731	0.03791650	0.06032937	0.11149760	
BETA	1.56752500	1.20021498	1.15043604	1.40829504	1.51816700	1.49758506	1.26483907	
RMS	0.022	0.027	0.023	0.023	0.014	0.023	0.036	
P(E>.01)	0.571	0.786	0.714	0.571	0.286	0.643	0.857	
MAR								
ALPHA	0.16603290	0.10116810	0.06287199	0.02284373	0.02134175	0.02347525	0.02067655	
BETA	0.77543563	1.16249204	1.35225594	1.52073894	1.43754497	1.55564294	1.35537496	
RMS	0.021	0.020	0.017	0.010	0.005	0.010	0.014	
P(E>.01)	0.571	0.643	0.571	0.214	0.071	0.357	0.500	
APR								
ALPHA	0.05446303	0.06732291	0.02603263	0.00800978	0.00729290	0.01446039	0.00417391	
BETA	1.42441905	1.04348101	1.37915099	1.58779001	1.45038497	1.28301902	1.99940097	
RMS	0.023	0.011	0.008	0.005	0.004	0.006	0.013	
P(E>.01)	0.571	0.357	0.214	0.000	0.000	0.071	0.429	
MAY								
ALPHA	0.04407324	0.05236233	0.00829331	0.00208712	0.00378855	0.00658447	0.03067505	
BETA	1.12498403	1.13543395	1.72195995	2.24231505	1.75414002	1.37767904	1.34867003	
RMS	0.021	0.010	0.006	0.003	0.003	0.004	0.024	
P(E>.01)	0.714	0.357	0.071	0.000	0.000	0.000	0.786	
JUN								
ALPHA	0.12937737	0.06708791	0.00784615	0.00563081	0.00368255	0.00910645	0.02370996	
BETA	0.85209030	1.02924800	1.82391596	1.39786296	1.85901394	1.43034995	1.13441202	
RMS	0.017	0.015	0.007	0.004	0.004	0.005	0.013	
P(E>.01)	0.429	0.643	0.214	0.000	0.000	0.000	0.500	
JUL								
ALPHA	0.00207467	0.03883046	0.00597861	0.00293778	0.00250432	0.00125604	0.00000128	
BETA	2.89901900	1.31517506	1.87748003	1.84796000	1.66459200	2.15732503	5.71422291	
RMS	0.027	0.010	0.007	0.004	0.002	0.002	0.001	
P(E>.01)	1.000	0.357	0.143	0.003	0.000	0.000	0.000	
AUG								
ALPHA	0.16017749	0.10440330	0.02001619	0.00563787	0.00452147	0.01012756	0.00702785	
BETA	1.01077795	1.00972795	1.57871907	1.84344006	1.81416094	1.54726505	1.73447594	
RMS	0.035	0.012	0.009	0.004	0.004	0.004	0.009	
P(E>.01)	0.786	0.571	0.286	0.071	0.000	0.143	0.286	
SEP								
ALPHA	0.23903500	0.19971140	0.02710257	0.00211725	0.00188682	0.01146831	0.00794039	
BETA	0.92189407	0.77771729	1.61068904	2.28710389	2.00236893	1.35159402	2.46171308	
RMS	0.029	0.017	0.014	0.004	0.002	0.007	0.024	
P(E>.01)	0.786	0.643	0.571	0.000	0.000	0.143	0.427	
OCT								
ALPHA	0.53557122	0.28084889	0.12629780	0.01499800	0.01226258	0.03800081	0.03784073	
BETA	0.31438522	0.70296597	0.93445353	1.75703394	1.76934996	1.31743803	1.56485999	
RMS	0.026	0.021	0.012	0.008	0.008	0.019	0.025	
P(E>.01)	0.714	0.786	0.571	0.143	0.286	0.500	0.571	
NOV								
ALPHA	0.06416915	0.12982111	0.10077330	0.05451098	0.04537838	0.07306165	0.10144840	
BETA	0.85572451	1.05556595	1.08206105	1.24164401	1.33193398	1.25381601	1.10841203	
RMS	0.022	0.024	0.023	0.017	0.010	0.021	0.017	
P(E>.01)	0.714	0.643	0.643	0.571	0.357	0.786	0.571	
DEC								
ALPHA	0.22150827	0.12714989	0.10705510	0.05394130	0.06624522	0.08266594	0.07551352	
BETA	1.31927502	1.22497104	1.24165404	1.49805997	1.37443995	1.48242903	1.44864500	
RMS	0.045	0.019	0.022	0.017	0.021	0.026	0.041	
P(E>.01)	0.929	0.500	0.643	0.500	0.786	0.500	0.929	

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

SENBACH AB WBAR034054

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.10441770	0.12684710	0.14696521	0.17167021	0.12673640	0.12216450	0.10111470	0.09378014
BETA	1.31752398	1.17133496	1.14517105	1.02781105	1.18861306	1.15472102	1.37853599	1.40094900
RMS	0.013	0.013	0.011	0.013	0.009	0.013	0.008	0.009
P(E>.01)	0.429	0.357	0.357	0.571	0.357	0.714	0.143	0.214
FEB								
ALPHA	0.08724814	0.10377450	0.14694700	0.18333919	0.08360038	0.06806642	0.07626780	0.07291546
BETA	1.41815996	1.33370495	1.15871090	1.01154399	1.29324496	1.34297204	1.39278400	1.47158897
RMS	0.011	0.010	0.008	0.014	0.013	0.012	0.008	0.010
P(E>.01)	0.286	0.286	0.286	0.571	0.500	0.429	0.286	0.429
MAR								
ALPHA	0.02007401	0.03705427	0.07718459	0.04794132	0.01218509	0.00944607	0.01688161	0.01520445
BETA	1.99540901	1.73923099	1.43165600	1.63430199	2.12056208	2.10641408	1.91024294	2.06619301
RMS	0.008	0.011	0.006	0.007	0.008	0.008	0.004	0.005
P(E>.01)	0.357	0.429	0.000	0.143	0.143	0.286	0.000	0.071
APR								
ALPHA	0.01519000	0.03966823	0.06068948	0.01328718	0.00227459	0.00135199	0.00287360	0.00460747
BETA	1.85419202	1.46705794	1.30352199	1.98073006	2.58803511	2.70963597	2.42591904	2.39248204
RMS	0.004	0.008	0.009	0.003	0.003	0.001	0.003	0.004
P(E>.01)	0.000	0.286	0.214	0.000	0.000	0.000	0.000	0.071
MAY								
ALPHA	0.01043767	0.03966662	0.02784430	0.00129089	0.00012855	0.00067913	0.00049694	0.00192714
BETA	1.88578704	1.37283597	1.60798502	2.98858690	3.81045699	2.66067600	2.89879608	2.62763095
RMS	0.010	0.014	0.010	0.002	0.001	0.001	0.001	0.003
P(E>.01)	0.429	0.714	0.500	0.000	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.01927224	0.04158490	0.03360985	0.00179545	0.00059821	0.00039106	0.00150574	0.00466495
BETA	1.60551906	1.18285501	1.55391097	2.82577410	2.99219901	3.04550992	2.37197495	2.22439003
RMS	0.008	0.012	0.008	0.004	0.002	0.002	0.001	0.006
P(E>.01)	0.143	0.643	0.143	0.071	0.000	0.000	0.000	0.071
JUL								
ALPHA	0.01365001	0.05112901	0.03949809	0.00233021	0.00039844	0.00018795	0.00077415	0.00381611
BETA	1.722947204	1.222494400	1.42175901	2.58917904	3.15506411	3.40462494	2.74432492	2.28746007
RMS	0.004	0.011	0.010	0.003	0.002	0.001	0.003	0.003
P(E>.01)	0.000	0.357	0.286	0.000	0.000	0.000	0.000	0.000
AUG								
ALPHA	0.01737603	0.04679783	0.07013624	0.00494039	0.00021207	0.00024692	0.00127910	0.00377461
BETA	1.49514298	1.13699996	1.15706205	2.36703396	3.59459400	3.18997002	2.54291389	2.30016208
RMS	0.009	0.016	0.016	0.006	0.002	0.001	0.001	0.002
P(E>.01)	0.214	0.571	0.500	0.071	0.000	0.000	0.000	0.000
SEP								
ALPHA	0.05612069	0.12167500	0.18141089	0.02419469	0.00172519	0.00073795	0.00543357	0.01470967
BETA	1.29703703	1.00408995	0.86055899	1.68710196	2.79972291	3.11286902	2.23438907	1.89939106
RMS	0.013	0.017	0.015	0.009	0.003	0.004	0.003	0.004
P(E>.01)	0.500	0.500	0.571	0.500	0.000	0.000	0.000	0.000
OCT								
ALPHA	0.157509730	0.23552697	0.33426490	0.16457130	0.03048496	0.02154218	0.03808914	0.07000037
BETA	1.00416295	0.82649678	0.65591472	0.91446041	1.69120106	1.72330905	1.61472404	1.39428997
RMS	0.029	0.032	0.031	0.022	0.011	0.006	0.008	0.020
P(E>.01)	0.857	0.857	0.786	0.643	0.286	0.000	0.286	0.643
NOV								
ALPHA	0.150837940	0.17737579	0.19910701	0.18891780	0.08499255	0.08573607	0.09854797	0.12592369
BETA	1.18628293	1.08449504	1.01860297	1.01140594	1.28191602	1.24921095	1.39429495	1.26487899
RMS	0.024	0.030	0.024	0.013	0.010	0.006	0.015	0.023
P(E>.01)	0.643	0.714	0.714	0.429	0.500	0.071	0.429	0.714
DEC								
ALPHA	0.14968130	0.15432190	0.16708320	0.20843941	0.14860620	0.14375460	0.11882900	0.12614430
BETA	1.20267403	1.15385306	1.10134462	0.75057359	1.06479299	1.09624398	1.10157197	1.30639899
RMS	0.020	0.016	0.016	0.014	0.009	0.011	0.016	0.020
P(E>.01)	0.571	0.643	0.571	0.500	0.143	0.029	0.429	0.643

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

SIEGENFRO GUNNERY RANGE WBAN034199

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.46434007	0.45823041	0.37418081	0.23507580	0.0908880	0.02171579	0.00036704	0.00036704
BETA	2.47324907	3.97860503	1.33595705	1.08203804	0.99098463	1.01747596	1.40911198	2.13997793
RMS	0.103	0.116	0.128	0.088	0.043	0.057	0.034	0.056
P(E>.01)	0.929	0.786	0.929	0.929	0.714	0.686	0.686	0.686
FEB	.	.	.	.	.	.	.	.
ALPHA	0.21402950	0.18111309	0.10908880	0.02171579	0.00036704	0.00036704	0.00036704	0.00036704
BETA	1.24385405	1.21375704	1.24880898	2.54215097	0.99098463	0.97387202	0.97387202	0.97387202
RMS	0.088	0.073	0.048	0.048	0.032	0.022	0.034	0.027
P(E>.01)	1.000	1.000	0.929	1.000	0.571	0.686	0.686	0.686
MAR	.	.	.	.	.	.	.	.
ALPHA	0.21252930	0.14216180	0.11827620	0.00797757	0.00036704	0.00036704	0.00036704	0.00036704
BETA	1.01539600	1.12938702	1.8934695	2.88574699	1.01539600	1.12938702	1.8934695	2.88574699
RMS	0.088	0.072	0.048	0.048	0.032	0.022	0.034	0.027
P(E>.01)	1.000	0.786	1.000	0.429	0.500	0.286	0.286	0.286
APR	.	.	.	.	.	.	.	.
ALPHA	0.12275700	0.06630590	0.01301758	0.00210200	0.00036704	0.00036704	0.00036704	0.00036704
BETA	1.0539600	1.01539600	1.0934695	3.63599704	0.99098463	0.97387202	0.97387202	0.97387202
RMS	0.088	0.073	0.048	0.048	0.032	0.022	0.034	0.027
P(E>.01)	0.929	1.000	0.429	0.500	0.286	0.286	0.286	0.286
MAY	.	.	.	.	.	.	.	.
ALPHA	0.09552302	0.00951844	0.00451896	0.00104187	0.00036704	0.00036704	0.00036704	0.00036704
BETA	1.82464400	1.8948603	2.21010399	2.21010399	0.9552302	1.0951844	1.0951844	1.0951844
RMS	0.024	0.010	0.007	0.005	0.005	0.005	0.005	0.005
P(E>.01)	0.714	0.214	0.071	0.143	0.686	0.686	0.686	0.686
JUN	.	.	.	.	.	.	.	.
ALPHA	0.04462980	0.02811953	0.00091688	0.00000187	0.00036704	0.00036704	0.00036704	0.00036704
BETA	1.34507495	1.28244904	1.18473196	4.28178310	0.99098463	0.97387202	0.97387202	0.97387202
RMS	0.027	0.015	0.014	0.003	0.003	0.003	0.003	0.003
P(E>.01)	0.714	0.371	0.357	0.000	0.686	0.686	0.686	0.686
JUL	.	.	.	.	.	.	.	.
ALPHA	0.09631395	0.07002775	0.00918777	0.00029408	0.00036704	0.00036704	0.00036704	0.00036704
BETA	1.00905704	1.04917997	1.50876999	2.99306989	0.99098463	0.97387202	0.97387202	0.97387202
RMS	0.031	0.014	0.005	0.005	0.005	0.005	0.005	0.005
P(E>.01)	0.643	0.357	0.071	0.071	0.686	0.686	0.686	0.686
AUG	.	.	.	.	.	.	.	.
ALPHA	0.24801040	0.089115951	0.02291047	0.00022543	0.00036704	0.00036704	0.00036704	0.00036704
BETA	0.94725293	1.21030998	1.61944699	3.19971398	0.99098463	0.97387202	0.97387202	0.97387202
RMS	0.065	0.037	0.027	0.003	0.003	0.003	0.003	0.003
P(E>.01)	0.929	0.929	0.571	0.000	0.686	0.686	0.686	0.686
SEP	.	.	.	.	.	.	.	.
ALPHA	0.28493810	0.04270071	0.00172294	0.00004643	0.00036704	0.00036704	0.00036704	0.00036704
BETA	1.66293204	3.19257498	4.93199205	0.99098463	0.97387202	0.97387202	0.97387202	0.97387202
RMS	0.054	0.029	0.015	0.007	0.007	0.007	0.007	0.007
P(E>.01)	0.657	0.357	0.429	0.143	0.686	0.686	0.686	0.686
OCT	.	.	.	.	.	.	.	.
ALPHA	0.57475787	0.31738580	0.12704467	0.02080517	0.00036704	0.00036704	0.00036704	0.00036704
BETA	0.62350468	0.85426453	1.03218496	1.78207898	0.99098463	0.97387202	0.97387202	0.97387202
RMS	0.043	0.025	0.028	0.023	0.023	0.023	0.023	0.023
P(E>.01)	0.786	0.643	0.786	0.571	0.686	0.686	0.686	0.686
NOV	.	.	.	.	.	.	.	.
ALPHA	0.20087570	0.16343860	0.10716080	0.02877392	0.00036704	0.00036704	0.00036704	0.00036704
BETA	0.72333197	0.93344557	1.10935903	1.32403696	0.99098463	0.97387202	0.97387202	0.97387202
RMS	0.019	0.027	0.030	0.018	0.018	0.018	0.018	0.018
P(E>.01)	0.643	0.786	0.857	0.643	0.686	0.686	0.686	0.686
DEC	.	.	.	.	.	.	.	.
ALPHA	0.25079280	0.29056731	0.30525559	0.04244846	0.00036704	0.00036704	0.00036704	0.00036704
BETA	0.95915163	1.09454298	0.97941949	1.43380797	0.99098463	0.97387202	0.97387202	0.97387202
RMS	0.077	0.116	0.108	0.036	0.036	0.036	0.036	0.036
P(E>.01)	0.857	0.929	1.000	0.714	0.686	0.686	0.686	0.686

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

SPANISHM 4B MBAN34054

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.12268120	0.13498341	0.15002440	0.20099500	0.13476460	0.11608420	0.10059190	0.09072396
BETA	0.96640912	0.97160178	0.90042428	0.85657978	0.90809202	0.91652513	0.98141539	0.94445799
RMS	0.012	0.012	0.009	0.011	0.009	0.007	0.016	0.014
P(E>.01)	0.286	0.357	0.286	0.429	0.286	0.286	0.571	0.714
FEB	.	.	.	.	.	.	.	.
ALPHA	0.07995705	0.09742510	0.12746060	0.15319160	0.09476632	0.06449477	0.06742455	0.07713890
BETA	1.00246278	0.94507043	0.93313372	0.93747491	0.95142138	1.00466299	1.02705097	0.91722351
RMS	0.008	0.009	0.009	0.007	0.009	0.008	0.008	0.014
P(E>.01)	0.357	0.286	0.286	0.214	0.071	0.214	0.286	0.500
MAR	.	.	.	.	.	.	.	.
ALPHA	0.03807260	0.05600613	0.08032139	0.04537731	0.01643228	0.01236894	0.01900337	0.02269527
BETA	1.17932498	1.16934997	1.10544503	1.23442602	1.67164700	1.50148201	1.35482001	1.22079601
RMS	0.004	0.006	0.010	0.008	0.006	0.004	0.004	0.004
P(E>.01)	0.071	0.071	0.286	0.143	0.214	0.000	0.071	0.000
APR	.	.	.	.	.	.	.	.
ALPHA	0.01233455	0.02200547	0.04938971	0.02424017	0.00798470	0.00379592	0.01113385	0.00799521
BETA	1.28745198	1.29561994	1.23743904	1.32613204	1.30652204	1.71438301	1.30857396	1.45339099
RMS	0.004	0.007	0.009	0.004	0.002	0.003	0.003	0.003
P(E>.01)	0.000	0.143	0.286	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.01706635	0.04504229	0.06723003	0.00952711	0.00198783	0.00173019	0.00570134	0.00519074
BETA	1.20446095	1.05733204	0.98801428	1.64930697	2.03243995	2.12057090	1.56691003	1.71610604
RMS	0.005	0.008	0.008	0.004	0.002	0.002	0.003	0.002
P(E>.01)	0.000	0.286	0.214	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.01543623	0.04204204	0.06958750	0.01270670	0.00089441	0.00124176	0.00215375	0.00759144
BETA	1.28628397	1.19701695	1.08314800	1.56389105	2.49587393	2.19631600	1.98117399	1.56542204
RMS	0.005	0.009	0.008	0.005	0.002	0.002	0.002	0.004
P(E>.01)	0.000	0.143	0.143	0.000	0.000	0.000	0.000	0.071
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00824446	0.03272866	0.04620478	0.00753092	0.00123329	0.00121324	0.00289034	0.00412573
BETA	1.48073196	1.23667300	1.23873198	1.77346897	2.09417608	1.90153801	1.40799003	1.57809198
RMS	0.003	0.007	0.007	0.004	0.001	0.001	0.001	0.002
P(E>.01)	0.000	0.143	0.071	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.01913930	0.04610438	0.07408746	0.02056747	0.00194525	0.00170977	0.00527682	0.00673542
BETA	1.38197196	1.18716393	1.22009097	1.58443494	2.24683404	2.07879806	1.637531605	1.71716797
RMS	0.004	0.005	0.009	0.005	0.002	0.001	0.003	0.003
P(E>.01)	0.000	0.071	0.357	0.143	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.03102114	0.06137117	0.14292850	0.05330037	0.00447459	0.00088359	0.00247640	0.00886922
BETA	1.28258002	1.22610400	0.99870351	1.29568505	2.04875203	2.62746000	2.25404492	1.47810404
RMS	0.008	0.008	0.014	0.010	0.005	0.002	0.004	0.005
P(E>.01)	0.214	0.286	0.786	0.357	0.071	0.000	0.000	0.071
OCT	.	.	.	.	.	.	.	.
ALPHA	0.11963550	0.16470040	0.23390970	0.16347210	0.04754199	0.02007712	0.03365531	0.06027720
BETA	0.82065411	0.73903161	0.65434331	0.74677769	1.13880503	1.48755002	1.24773800	1.02279603
RMS	0.010	0.012	0.012	0.011	0.007	0.004	0.008	0.007
P(E>.01)	0.429	0.429	0.500	0.357	0.071	0.000	0.143	0.143
NOV	.	.	.	.	.	.	.	.
ALPHA	0.14673540	0.18906321	0.21621220	0.20024740	0.11299730	0.08244134	0.06821377	0.09615544
BETA	0.61749697	0.58123821	0.55592430	0.47581367	0.76999038	0.86030388	0.90201068	0.74869333
RMS	0.012	0.013	0.012	0.009	0.008	0.011	0.011	0.014
P(E>.01)	0.500	0.571	0.571	0.286	0.071	0.357	0.429	0.500
DEC	.	.	.	.	.	.	.	.
ALPHA	0.20956060	0.22952010	0.23002370	0.23122050	0.18093990	0.18527800	0.18089150	0.21307290
BETA	0.56137580	0.56097671	0.54331742	0.67574278	0.73272300	0.674645701	0.62113369	0.53824902
RMS	0.010	0.017	0.019	0.013	0.007	0.010	0.016	0.017
P(E>.01)	0.857	0.643	0.786	0.500	0.143	0.286	0.714	0.714

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

TENTHOP APRIL WBAN035104

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.07879388	0.07787759	0.12990020	0.15901321	0.09757837	0.08702234	0.07134213	0.08122811
BETA	1.54127502	1.51437900	1.42334700	1.45288503	1.60539804	1.63296902	1.70700800	1.59193504
RHO	0.024	0.024	0.025	0.030	0.021	0.030	0.026	0.028
P(E>.01)	0.643	0.643	0.571	0.657	0.643	0.786	0.714	0.643
FEB	.	.	.	.	.	.	.	.
ALPHA	0.08622400	0.10370300	0.18560450	0.14819360	0.04757593	0.05487749	0.04586104	0.05142464
BETA	1.43223798	1.44465396	1.34390978	1.43181300	1.44301097	1.71492803	1.73608005	1.56469300
RHO	0.020	0.020	0.027	0.020	0.024	0.025	0.021	0.017
P(E>.01)	0.571	0.571	0.543	0.929	0.657	0.714	0.500	0.571
MAR	.	.	.	.	.	.	.	.
ALPHA	0.01461310	0.02266106	0.06886707	0.03142053	0.00944468	0.00931132	0.00852224	0.00851574
BETA	2.05488203	2.00420391	1.75875298	1.99179004	2.21592595	2.20301390	2.29948497	2.24524593
RHO	0.011	0.019	0.026	0.024	0.008	0.012	0.008	0.010
P(E>.01)	0.357	0.500	0.786	0.714	0.357	0.357	0.214	0.357
APR	.	.	.	.	.	.	.	.
ALPHA	0.00431673	0.01571133	0.02313426	0.01007758	0.00624333	0.00654387	0.00506382	0.00252149
BETA	2.25342202	1.96443999	2.09019399	2.15689802	2.01126880	1.81523705	1.99126303	2.37857604
RHO	0.005	0.005	0.017	0.010	0.004	0.005	0.004	0.005
P(E>.01)	0.071	0.000	0.500	0.357	0.071	0.071	0.000	0.071
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00533289	0.01445844	0.01082143	0.00272028	0.00105253	0.00223562	0.00142424	0.00113592
BETA	2.09090209	2.03085494	2.21994305	2.57443405	2.77090673	2.12768507	2.35531693	2.77549294
RHO	0.003	0.006	0.014	0.007	0.005	0.002	0.003	0.004
P(E>.01)	0.000	0.000	0.357	0.286	0.000	0.000	0.000	0.071
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00129232	0.00411229	0.00249936	0.00153264	0.00020434	0.00020152	0.00048917	0.00024619
BETA	2.34242790	2.49431610	2.65979509	2.40559777	3.31703474	3.02981400	2.85442901	3.12404393
RHO	0.001	0.005	0.009	0.006	0.002	0.002	0.004	0.002
P(E>.01)	0.000	0.071	0.286	0.071	0.000	0.000	0.071	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00048022	0.00307431	0.00391892	0.00134590	0.00085194	0.00057253	0.00039549	0.00025674
BETA	2.98601599	2.46179604	2.43101402	2.66951990	2.47276996	2.39852504	2.76480398	3.16364408
RHO	0.003	0.007	0.013	0.005	0.003	0.001	0.003	0.002
P(E>.01)	0.000	0.143	0.357	0.071	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00078614	0.00709050	0.00995844	0.00180993	0.00070842	0.00080237	0.00058584	0.00014243
BETA	2.86741900	2.23575991	2.32036109	2.79187607	2.70083809	2.34913891	2.70379806	3.61594510
RHO	0.003	0.007	0.013	0.007	0.002	0.003	0.003	0.005
P(E>.01)	0.000	0.143	0.357	0.143	0.000	0.000	0.000	0.071
SEP	.	.	.	.	.	.	.	.
ALPHA	0.00629286	0.01930646	0.03575331	0.00997074	0.00475247	0.00471241	0.00292138	0.00703948
BETA	2.15778089	1.86703596	1.92613101	2.29892474	2.19972706	2.10721111	2.47320404	1.91944802
RHO	0.005	0.008	0.022	0.016	0.004	0.003	0.003	0.003
P(E>.01)	0.000	0.143	0.571	0.571	0.071	0.000	0.071	0.000
OCT	.	.	.	.	.	.	.	.
ALPHA	0.07923975	0.11013330	0.16331060	0.08874980	0.03364467	0.03122301	0.03633363	0.04477405
BETA	1.19412100	1.11644697	1.25211301	1.43008602	1.65744994	1.46780901	1.54775798	1.23363596
RHO	0.016	0.020	0.022	0.014	0.013	0.008	0.014	0.012
P(E>.01)	0.714	0.714	0.786	0.429	0.286	0.286	0.429	0.643
NOV	.	.	.	.	.	.	.	.
ALPHA	0.04258803	0.04906388	0.07200348	0.05722657	0.04240820	0.03639129	0.02543625	0.03867812
BETA	1.52203804	1.48406303	1.55679795	1.70489595	1.62812493	1.68157397	1.78829706	1.56829296
RHO	0.006	0.014	0.018	0.016	0.010	0.016	0.018	0.013
P(E>.01)	0.143	0.357	0.443	0.571	0.429	0.357	0.571	0.357
DEC	.	.	.	.	.	.	.	.
ALPHA	0.06086788	0.07404143	0.10875300	0.13723250	0.09705710	0.06896390	0.05380942	0.05437420
BETA	1.53701901	1.45912595	1.44918006	1.44397998	1.52977598	1.39599102	1.36816804	1.54851305
RHO	0.010	0.016	0.021	0.015	0.015	0.018	0.024	0.020
P(E>.01)	0.500	0.571	0.571	0.500	0.643	0.714	0.571	0.571

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

WERTHEIM AAF WBAN034076

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.000000000	0.000000000	0.40514731	0.40175701	0.28001660	0.24187230	0.26735431	0.288888888
BETA	0.000000000	0.000000000	0.81639189	0.77076101	0.89722359	0.97144639	1.00895594	0.888888888
RMS	0.0000	0.0000	0.014	0.017	0.025	0.024	0.026	0.026
P(E>.01)	0.0000	0.0000	0.643	0.643	0.786	0.786	1.000	0.8888
FEB	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.22806739	0.24791610	0.16024680	0.11405820	0.11319810	0.888888888
BETA	0.000000000	0.000000000	0.97603158	0.82725322	0.95468682	1.04625795	1.13894997	0.888888888
RMS	0.0000	0.0000	0.020	0.023	0.016	0.015	0.013	0.008
P(E>.01)	0.0000	0.0000	0.571	0.786	0.714	0.714	0.500	0.8888
MAR	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.18989910	0.16647840	0.06009110	0.04553419	0.05331710	0.888888888
BETA	0.000000000	0.000000000	1.03710496	1.05683196	1.38482706	1.33213401	1.31565279	0.888888888
RMS	0.0000	0.0000	0.021	0.018	0.016	0.008	0.012	0.008
P(E>.01)	0.0000	0.0000	0.571	0.429	0.500	0.286	0.357	0.8888
APR	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.14275131	0.07745147	0.02292480	0.015252974	0.00457535	0.888888888
BETA	0.000000000	0.000000000	1.02347103	1.23366201	1.52172899	1.52356899	2.31539202	0.888888888
RMS	0.0000	0.0000	0.021	0.013	0.009	0.003	0.006	0.006
P(E>.01)	0.0000	0.0000	0.643	0.429	0.357	0.000	0.071	0.8888
MAY	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.09849023	0.02731485	0.00334070	0.00073612	0.00001621	0.888888888
BETA	0.000000000	0.000000000	1.11192298	1.48018599	2.21477509	2.80466199	4.99335078	0.888888888
RMS	0.0000	0.0000	0.022	0.006	0.008	0.004	0.002	0.008
P(E>.01)	0.0000	0.0000	0.786	0.071	0.286	0.000	0.000	0.8888
JUN	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.12966180	0.02056670	0.00913635	0.00258591	0.00237748	0.888888888
BETA	0.000000000	0.000000000	1.05442202	1.77136305	1.74708200	2.31014800	2.39863096	0.888888888
RMS	0.0000	0.0000	0.016	0.010	0.007	0.004	0.004	0.008
P(E>.01)	0.0000	0.0000	0.571	0.357	0.071	0.000	0.000	0.8888
JUL	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.13004510	0.02009337	0.00461177	0.00279339	0.00360128	0.888888888
BETA	0.000000000	0.000000000	0.96292198	1.66418803	1.88079703	2.04693699	1.86459804	0.888888888
RMS	0.0000	0.0000	0.014	0.004	0.005	0.004	0.006	0.008
P(E>.01)	0.0000	0.0000	0.643	0.000	0.071	0.000	0.071	0.8888
AUG	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.29154229	0.07712869	0.00405056	0.00438659	0.00137094	0.888888888
BETA	0.000000000	0.000000000	0.70569950	1.17194104	2.33152890	2.04529593	2.77554109	0.888888888
RMS	0.0000	0.0000	0.023	0.013	0.010	0.008	0.007	0.008
P(E>.01)	0.0000	0.0000	0.571	0.429	0.286	0.143	0.214	0.8888
SEP	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.49454180	0.21435190	0.03030276	0.00557737	0.00739604	0.888888888
BETA	0.000000000	0.000000000	0.46749507	0.74948643	1.48272300	2.11603093	2.00306010	0.888888888
RMS	0.0000	0.0000	0.021	0.019	0.006	0.005	0.007	0.002
P(E>.01)	0.0000	0.0000	0.429	0.714	0.143	0.071	0.214	0.8888
OCT	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	6.40193962	0.44257021	0.15337320	0.07238566	0.08249930	0.888888888
BETA	0.000000000	0.000000000	0.38242997	0.45563999	0.82732922	1.13021004	1.16062999	0.888888888
RMS	0.0000	0.0000	0.020	0.015	0.010	0.011	0.014	0.008
P(E>.01)	0.0000	0.0000	0.500	0.500	0.286	0.429	0.429	0.8888
NOV	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.33129650	0.29219740	0.17140800	0.15244680	0.16702050	0.888888888
BETA	0.000000000	0.000000000	0.70335668	0.71710821	0.89473471	0.93247497	1.05542397	0.888888888
RMS	0.0000	0.0000	0.019	0.016	0.017	0.014	0.017	0.008
P(E>.01)	0.0000	0.0000	0.714	0.571	0.786	0.571	0.714	0.8888
DEC	.	.	.	.	.	.	.	.
ALPHA	0.000000000	0.000000000	0.24494117	0.30067920	0.22477090	0.20859870	0.19497580	0.888888888
BETA	0.000000000	0.000000000	0.90825379	0.79323930	0.85312188	0.92723879	1.04163697	0.888888888
RMS	0.0000	0.0000	0.016	0.018	0.016	0.016	0.016	0.016
P(E>.01)	0.0000	0.0000	0.429	0.300	0.300	0.429	0.643	0.8888

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

WIESBADEN AB WBAN#T5010

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.13611130	0.14004990	0.17001450	0.22519159	0.17622530	0.1520519	0.12287150	0.12155940
BETA	0.98891151	0.94432372	0.9384528	0.91794717	1.01068497	1.01391497	1.13881803	1.06403196
RMS	0.005	0.007	0.010	0.010	0.009	0.010	0.009	0.007
P(E>.01)	0.000	0.214	0.357	0.357	0.286	0.286	0.214	0.143
FEB								
ALPHA	0.10353670	0.12158290	0.15713510	0.19204910	0.13132800	0.10840650	0.10346340	0.08748474
BETA	1.13551798	1.04155997	0.97224832	0.96824580	1.09110999	1.08525405	1.14765301	1.20792600
RMS	0.009	0.010	0.008	0.010	0.014	0.009	0.009	0.010
P(E>.01)	0.286	0.429	0.286	0.357	0.571	0.286	0.357	0.214
MAR								
ALPHA	0.02026182	0.03511326	0.08151086	0.09187268	0.03847153	0.01975802	0.01620862	0.01273448
BETA	1.77472794	1.55745605	1.24497302	1.27915299	1.56210005	1.72535598	1.87224495	1.84348298
RMS	0.004	0.005	0.004	0.007	0.004	0.004	0.003	0.003
P(E>.01)	0.000	0.000	0.071	0.214	0.071	0.000	0.000	0.000
APR								
ALPHA	0.000303822	0.00898995	0.03193007	0.02224277	0.00503934	0.00155642	0.00159907	0.00175745
BETA	2.40386510	1.95928597	1.56984794	1.77390397	2.17084101	2.53621507	2.40331905	2.34621790
RMS	0.003	0.003	0.005	0.004	0.003	0.001	0.001	0.003
P(E>.01)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAY								
ALPHA	0.00124700	0.00691815	0.02027418	0.00709312	0.00147978	0.00056726	0.00075385	0.00086153
BETA	2.63845491	2.05035496	1.70428002	2.14519095	2.55212808	2.76626492	2.64455304	2.71768689
RMS	0.002	0.003	0.004	0.002	0.002	0.002	0.001	0.001
P(E>.01)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.00451296	0.01097041	0.02119692	0.00703370	0.00067851	0.00057795	0.00046682	0.00249412
BETA	2.00387192	1.84198701	1.76355100	2.21367100	3.01304102	2.84105492	3.00808096	2.31983005
RMS	0.002	0.003	0.005	0.004	0.003	0.002	0.001	0.001
P(E>.01)	0.000	0.000	0.071	0.000	0.000	0.000	0.000	0.000
JUL								
ALPHA	0.00142550	0.00724809	0.02038759	0.00720253	0.00003764	0.00060538	0.00080687	0.00100864
BETA	2.51454004	2.05273507	1.82032394	2.19348192	2.84918074	2.73065209	2.43793707	2.64092398
RMS	0.001	0.005	0.005	0.004	0.002	0.002	0.001	0.001
P(E>.01)	0.000	0.071	0.071	0.000	0.000	0.000	0.000	0.000
AUG								
ALPHA	0.00423368	0.01439934	0.04014315	0.01544785	0.00189938	0.00042.72	0.00143638	0.00127271
BETA	2.07439790	1.72212303	1.50584495	1.90889800	2.58061303	3.03410506	2.30216503	2.57527790
RMS	0.003	0.006	0.003	0.005	0.003	0.001	0.002	0.002
P(E>.01)	0.000	0.071	0.000	0.071	0.000	0.000	0.000	0.000
SEP								
ALPHA	0.01581615	0.03899314	0.12857410	0.07951769	0.02139063	0.00833896	0.01182143	0.00924678
BETA	1.75047398	1.46105695	1.04541302	1.28745902	1.67283204	1.95544803	1.75460503	1.91327801
RMS	0.002	0.008	0.014	0.005	0.008	0.003	0.005	0.003
P(E>.01)	0.000	0.286	0.500	0.071	0.286	0.000	0.071	0.000
OCT								
ALPHA	0.10907000	0.18104810	0.30118239	0.24787110	0.11006470	0.07354539	0.07097867	0.07341682
BETA	0.98293352	0.78940839	0.63942868	0.78748041	1.09742294	1.1675802	1.22086596	1.16672997
RMS	0.014	0.022	0.022	0.011	0.009	0.007	0.006	0.013
P(E>.01)	0.371	0.371	0.786	0.357	0.286	0.071	0.071	0.429
NOV								
ALPHA	0.11333020	0.14264780	0.18472310	0.22254860	0.13117781	0.13383850	0.10341640	0.10724540
BETA	1.09304500	0.97076092	0.90499818	0.92799908	1.04499197	1.06229901	1.16064501	1.13080597
RMS	0.007	0.011	0.009	0.007	0.011	0.006	0.006	0.010
P(E>.01)	0.143	0.429	0.429	0.214	0.429	0.071	0.143	0.214
DEC								
ALPHA	0.14217350	0.16310591	0.18241210	0.23102351	0.20427709	0.20464320	0.14157870	0.13091210
BETA	1.04509306	0.94297051	0.91341603	0.91679381	0.93114501	0.9144527	1.07172203	1.10641503
RMS	0.012	0.013	0.011	0.007	0.011	0.013	0.007	0.009
P(E>.01)	0.427	0.429	0.357	0.214	0.286	0.357	0.143	0.286

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ZWEIBRUECKEN AB WBAN034050

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.09169536	0.12816679	0.15846381	0.17663760	0.11231360	0.06651569	0.08207127	0.07513637
BETA	1.19080198	1.04213593	0.98466069	1.05072904	1.21139002	1.3716BB96	1.23867202	1.20832102
RMS	0.013	0.013	0.013	0.017	0.018	0.019	0.014	0.014
P(E>.01)	0.429	0.500	0.429	0.429	0.571	0.500	0.286	0.286
FEB								
ALPHA	0.08140746	0.10810670	0.13851200	0.15752430	0.06337318	0.03535484	0.03444120	0.04043447
BETA	1.17044795	1.07639003	1.00199902	1.02838807	1.34352505	1.50381601	1.51061201	1.45153296
RMS	0.020	0.012	0.014	0.021	0.013	0.009	0.010	0.013
P(E>.01)	0.443	0.286	0.500	0.786	0.214	0.214	0.286	0.714
MAR								
ALPHA	0.02439160	0.03857100	0.07841400	0.05919738	0.01801286	0.01330063	0.01293348	0.01705066
BETA	1.48040402	1.40787494	1.26728201	1.52479696	1.76470101	1.66271496	1.49574594	1.49111795
RMS	0.008	0.010	0.016	0.015	0.010	0.008	0.010	0.008
P(E>.01)	0.143	0.214	0.571	0.286	0.143	0.214	0.286	0.143
APR								
ALPHA	0.01243801	0.03203824	0.06895752	0.03540780	0.01021302	0.00459755	0.00596214	0.01314107
BETA	1.69575298	1.35172796	1.24848199	1.43655396	1.76525199	1.94270205	1.76448500	1.43336499
RMS	0.008	0.009	0.010	0.007	0.006	0.005	0.003	0.005
P(E>.01)	0.143	0.286	0.357	0.143	0.143	0.143	0.000	0.143
MAY								
ALPHA	0.00918886	0.02758924	0.03296939	0.00826751	0.00231890	0.00067644	0.00153144	0.00471474
BETA	1.74627004	1.44709599	1.52875498	1.93392800	2.05870891	2.59057403	2.21512294	1.84069705
RMS	0.005	0.008	0.011	0.005	0.003	0.002	0.003	0.002
P(E>.01)	0.143	0.357	0.214	0.071	0.000	0.000	0.000	0.000
JUN								
ALPHA	0.03070340	0.07484304	0.08245814	0.01825037	0.00455312	0.00234455	0.00226002	0.01800188
BETA	1.2885298	1.04944599	1.11949503	1.61442900	1.94625200	2.05870390	2.14957808	1.63664997
RMS	0.007	0.011	0.011	0.009	0.003	0.004	0.004	0.005
P(E>.01)	0.143	0.357	0.143	0.071	0.000	0.071	0.071	0.071
JUL								
ALPHA	0.01435542	0.03264885	0.03680002	0.01181124	0.00271577	0.00227474	0.00174903	0.00418936
BETA	1.50242603	1.37787805	1.30568302	1.82920694	2.00806904	1.81179500	2.13863802	1.93708098
RMS	0.006	0.009	0.011	0.006	0.002	0.003	0.002	0.002
P(E>.01)	0.143	0.214	0.214	0.143	0.000	0.000	0.000	0.000
AUG								
ALPHA	0.02284271	0.06775147	0.09774676	0.03678562	0.00881215	0.00406435	0.00715048	0.00583402
BETA	1.44084397	1.12013495	1.14957500	1.46274698	1.74874101	1.94673897	1.64587200	1.95239902
RMS	0.007	0.010	0.014	0.008	0.004	0.005	0.002	0.007
P(E>.01)	0.143	0.286	0.571	0.143	0.000	0.071	0.000	0.143
SEP								
ALPHA	0.04857856	0.12013170	0.161369730	0.07502958	0.00548780	0.00261035	0.00685935	0.01847207
BETA	1.04404402	0.94975132	0.90637767	1.15281606	2.10376191	2.21372390	1.85622895	1.52400300
RMS	0.009	0.011	0.013	0.008	0.004	0.003	0.004	0.008
P(E>.01)	0.357	0.429	0.571	0.357	0.000	0.000	0.000	0.071
OCT								
ALPHA	0.12141010	0.20205460	0.28266450	0.20223120	0.04680223	0.01768295	0.03827447	0.06111346
BETA	0.85807081	0.74894208	0.69981432	0.80882072	1.30246497	1.64006495	1.3093104	1.09068301
RMS	0.015	0.017	0.017	0.023	0.011	0.009	0.012	0.014
P(E>.01)	0.714	0.643	0.714	0.857	0.286	0.143	0.143	0.571
NOV								
ALPHA	0.18500960	0.21380970	0.24017330	0.22748640	0.11098470	0.08452731	0.11257680	0.13899350
BETA	0.68775839	0.69962221	0.71818560	0.79742920	1.00353396	0.98949289	0.83538538	0.79616767
RMS	0.019	0.018	0.015	0.015	0.015	0.020	0.019	0.016
P(E>.01)	0.571	0.643	0.643	0.571	0.643	0.643	0.714	0.571
DEC								
ALPHA	0.20492290	0.23031670	0.23204020	0.23632520	0.16005640	0.13728981	0.13633040	0.15790340
BETA	0.78672367	0.74523121	0.71640909	0.81074882	0.98135918	1.00551295	0.95486850	0.86962140
RMS	0.023	0.027	0.022	0.019	0.014	0.017	0.018	0.023
P(E>.01)	0.443	0.657	0.786	0.500	0.571	0.643	0.500	0.786

